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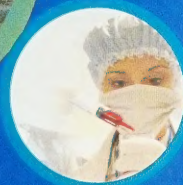
# Focus North

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NORTHERN  
DEVELOPMENT  
MINISTERS

## FORUM



### INITIATIVES TO MAXIMIZE ECONOMIC AND SOCIAL IMPACTS FROM MAJOR PROJECTS IN THE NORTH

Activities Report 2003-2004  
and recommendations

**CHIBOUGAMAU**

OCTOBER 27-29, 2004



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# INITIATIVES TO MAXIMIZE ECONOMIC AND SOCIAL IMPACTS FROM MAJOR PROJECTS IN THE NORTH

Activities Report 2003-2004  
And Recommendations

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**Initiatives aimed at maximizing economic  
and social impacts from major projects in the North**

**Northern Development Ministers Forum**

**2003-2004 Activities Report  
and Recommendations**

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## 1. Northern Development Ministers Forum

Founded in 2000, the Northern Development Ministers Forum approved the following mission at its meeting in La Ronge, Saskatchewan, in 2001: ***“to advance the diverse and common interests of Northerners and to raise awareness of the accomplishments, contributions and potential of the North”***.

To carry out this mission, the Forum set five objectives:

1. Identify, act and provide leadership on strategic actions which advance the socio-economic development of the North;
2. Strengthen the position of the North in relation to setting provincial, territorial and national priorities;
3. Further enhance cooperation between Northern Provincial jurisdictions, Territorial jurisdictions and the Government of Canada;
4. Share information;
5. Organize an annual conference as a forum for Northern development ministers to set priorities.

The priority initiative to maximize economic and social impacts of major Northern development projects, the subject of this report, seeks to fulfil the mission and objectives of the Northern Development Ministers Forum.

# Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects



## **2. Priority initiative to maximize economic and social impacts**

### **2.1 Background**

At the annual federal-provincial-territorial Forum of Northern Development Ministers, held in Iqaluit, Nunavut in 2003, the province of Quebec presented a new priority initiative aimed at “maximizing the economic and social impact of major projects in the North”.

This project was related to the earlier priority project on infrastructure development. In fact, the report on Northern Infrastructure Development as presented by the Government of the Northwest Territories, included an inventory of provincial and territorial Northern infrastructure and development projects underway or planned for the short term.

Over 241 projects were identified in various economic sectors in Canada's North. According to estimates supplied by the provinces and territories, these projects will generate, over the short term (i.e. within five years), investments valued at around \$73 billion and could create 187,000 person-years of employment.

Generally speaking, these major projects will boost job creation and stimulate economic diversification by making the Canadian economy more productive and competitive. On the other hand, the Government of Quebec (together with other provincial and territorial governments, as well as by the federal government) realized a major challenge facing Canadian governments and private partners involved in these major Northern investment projects was how to maximize the projects' economic and social impacts in such a way as to enhance the quality of life of all inhabitants of Canada's North.

Given the scope of this challenge, it was deemed important to assess the manner in which Canadian governments will take advantage of these major investments for the benefit of Northern inhabitants as well as for all Canadians.

To conduct this assessment, a two-step approach was designed. The first step was to catalogue and analyse ways of doing things that help maximize economic and social impacts of major investment projects. This analysis of best development practices focussed on natural resource development and looked at examples identified both in Canada and internationally. Following this analysis, the objective was to develop a model or frame of reference that would serve as a “how-to manual” for governments and private-sector partners. The “manual” would outline how to maximize the economic and social benefits of major investment projects carried out in the North on target



communities, as well as the country as a whole. The overall objective being to make Canada a world leader in this field.

The second step examined the impact of Northern investment and development on Canada as a whole. This exercise identified the effects of Northern economic development on the Canadian economy, but also on the Northern regions themselves, so as to highlight the gap between the investments made in the North and their impacts on Northerners.

All the provinces and all the territories supported the initiative proposed by Quebec.

## **2.2 The approach**

The Governments of Quebec and the Northwest Territories were charged with developing this theme, and a working group was established. This working group included representatives of British Columbia and Saskatchewan.

In reference to recommendations made by the ministers in Iqaluit, and considering the scope of the task, it was agreed during the annual meeting of the working group of senior officials, held in Montreal in January 2004, to examine opportunities to cooperate and partner with the Canadian academic community and the Conference Board of Canada.

A detailed work plan was then tabled by the working group and included in the 2004-2006 triennial Action Plan of the Northern Development Ministers Forum. The main steps were:

1. Develop a template that allows analysis of the strategies and actions that achieved maximum economic and social benefit.
2. Identify in each province or territory examples of best examples which maximize the social and economic impacts of major projects.
3. With partner agencies, identify examples of international and Northern tools, models and information that work to maximize the economic and social benefit of projects.
4. Develop Northern and international best tools, models and information and present these at the Northern Minister's forum in September, 2004.
5. Propose to the Ministers a work plan for 2004/05 that builds upon the working group's research and assesses the impact of Northern development projects on the Canadian economy and return on investment.



Coincidental to the work plan's development, representatives of the Governments of Quebec and of the Northwest Territories met with representatives of the Conference Board of Canada in Ottawa in February 2004 to discuss the Board's study on Canadian infrastructure and to assess how this organization might support or cooperate with the working group.

There was general agreement that the Conference Board could eventually collaborate with the working group, particularly as regards Phase II of the project, scheduled to take place in 2004 and 2005.

With a view to cataloguing best Canadian examples, the working group asked each province and territory in April 2004 to provide two best examples of maximizing the economic and social impacts of Northern projects. These examples can be found in Appendix 1 of the report, and a synthesis prepared by the working group can be found in Section 3.1 of the report. The synthesis highlights the results of these examples as well as the main success factors. Each of the examples in the synthesis has been approved by the appropriate government.

As regards the examples of maximization of the economic and social impacts of major projects internationally, and at the request of the Governments of Quebec and the Northwest Territories, the Observatoire de l'administration publique de l'Énap was contracted in April 2004 to identify, at the international level, examples that could guide the governments and private partners in maximizing the economic and social impacts of major Northern projects.

Five themes or industries were identified by the working group from the report tabled in 2003 by the Northwest Territories:

- Global maximization policies;
- Mining sector;
- Energy and hydroelectric development, including pipelines;
- Forestry sector;
- Transportation infrastructure.

For each of these themes, five significant best practices were identified and described in detail using an analytical grid agreed upon with l'Énap and the two responsible governments.

Appendix 2 contains the report of the Observatoire de l'Énap on the internationally-catalogued maximization initiatives; a synthesis of this study can be found in Section 3.2 of the present rapport. The synthesis summarizes the information on each of the themes and each of the identified best practices.

Considering the volume and quality of the l'Énap report, the synthesis is limited. It reflects the views of the working group on prime best practices in terms of the economic and social impacts of major projects. For a comprehensive view of the examples and practices examined, the reader is invited to look through the appendices.

A general assessment of Canadian and international maximization practices was catalogued by the working group. This assessment, found in Section 4 of the report, highlights the main findings which emerge from this review.

Finally, the working group formulated, in Section 5 of the report, recommendations to be made to the Northern development ministers at Chibougamau in October 2004. These recommendations are designed to finalize the priority and provide further direction to the working group.

## **2.3 Methodological considerations**

As for the study carried out in partnership with the Observatoire de l'Énap, the organization researched:

- Documents available on the Internet and in data banks;
- Information obtained over the telephone or via email from the organizations studied.

Five meetings were held with the designated representatives of the working group. Over 40 practices were outlined by l'Énap, of which 25 were selected for inclusion in this report.

While the research was not exhaustive, Énap tried, wherever possible, to use several sources of information to support each best practice selected. Each example is a summary of significant research, solicitation and writing.

For some practices, there was significant information on the Internet; for others, there was little. In these cases Énap contacted the project directly. Every effort was made to find points of comparison between the practices (e.g. financial data revealing the scope of the overall project as well as the annual expenditures).

The Canadian maximization examples were chosen by the provinces and territories following at the request of the working group. The examples consist of practices deemed the most interesting or best by the governments themselves and differ in terms of their content and presentation. This aspect of the Canadian examples led the working group to consider a wide range of viewpoints and approaches geared to maximizing economic and social impacts.



### **3. Synthesis of maximization examples identified in Canada by the provinces and territories**

#### **3.1 Provincial Examples**

##### **3.1.1 Alberta**

##### **3.1.1.1 Oils sands industry development**

#### **Challenge or project description**

Northern Alberta has all of Canada's oil sands development and is one of the world's two largest sources of bitumen. In 2002, the region's production of synthetic crude and bitumen averaged 740,000 barrels per day, with production expected to rise to 1.9 million barrels per day by 2010. Investment in the oil sands is forecasted to reach about \$5 billion a year from 2004 to 2008, creating a demand of \$8.5 billion for construction materials and labour and \$3.3 billion for machinery and equipment each year. Managing the economic, social and environmental impacts of large-scale industrial development is a significant challenge for the region.

#### **Solution/ Results**

1. Regional groups have been established who work together to address the economic, social and environmental issues involved in oil sands development.
2. Regional consultation agreements between governments, developers and Aboriginal groups have been made. A recent example is the Athabasca Tribal Council-All Parties Core Agreement. This agreement sets out three objectives:
  - Managing the issues related to the impact of industrial development on regional First Nations;
  - Developing long-term mutually beneficial relations between the parties; and
  - Maximizing opportunities for all parties to benefit from industrial development.The agreement is to provide funding to each First Nation for an Industry Relations Corporation, which will assist each community to consult with Industry and identify issues related to industrial development.
3. Companies have policies and programs in place to maximize local benefits and have a strong commitment for consultation with the public Aboriginal population.

#### **Keys of success**

- Strong partnership between government, industries and public and private partners have been developed to tackle specific issues.
- Agreements with first Nations and Métis have been signed to develop mutually long-term beneficial relations.
- Policies and programs in place to maximize local benefits

### **3.1.1 ALBERTA CONTINUED**

#### **3.1.1.2 Alberta-Pacific Forest Industries Inc.**

##### **Challenge or project description**

Northern Alberta has all of Canada's oil sands development and is one of the world's two largest sources of bitumen. In 2002, the region's production of synthetic crude and bitumen averaged 740,000 barrels per day, with production expected to rise to 1.9 million barrels per day by 2010. Investment in the oil sands is forecasted to reach about \$5 billion a year from 2004 to 2008, creating a demand of \$8.5 billion for construction materials and labour and \$3.3 billion for machinery and equipment each year. Managing the economic, social and environmental impacts of large-scale industrial development is a significant challenge for the region.

##### **Solution/ Results**

1. The company has integrated Aboriginal Relations initiatives into every aspect of its operations and has many programs and ongoing partnerships that demonstrate its commitment to working with Aboriginal peoples, particularly in the areas of education and environment.
2. The company supported two major business initiatives that will provide local employment in Aboriginal communities and will be significant contributors to local economies.
3. Alberta-Pacific is the only forest company in Alberta to have a public advisory group with the power to actually make decisions about how the company will operate.
4. Alberta-Pacific has established offices in Wabasca, Janvier and Ft. McMurray, each with a community liaison, generally an Aboriginal community member who has good knowledge of the issues and priorities for that community.
5. Alberta-Pacific has provided capacity, through secondment and funding, to a number of Aboriginal communities including Janvier and Desmarais.
6. The company is also participating in provincial programs respecting education and environment.

##### **Keys of success**

- Integration of Aboriginal relations initiatives into every aspect of the operation company.
- Strong partnership.
- Public advisor.
- Community liaison.



### **3.1.2 BRITISH COLUMBIA**

#### **3.1.2.1**

#### **University of Northern British Columbia (UNBC)**

##### **Challenge or project description**

Education continues to be a top priority in British Columbia and government has adopted the “best practice” of providing meaningful educational opportunities in the north rather than focusing solely on expanding facilities and services in the southern urban institutions.

On March 15, 2002, the British Columbia government announced the creation of a \$12 million health sciences facility at UNBC to act as a institution of the medical school as the University of British Columbia. Through this initiative, British Columbia will increase the supply of doctors and improve northern health care by training medical students in the north.

##### **Solution/ Results**

- 12 M\$ of investment at UNBC
- Part of a larger 134 M\$ Life Sciences initiative to increase number of first-year medical school spaces in BC from 128 to 224 by 2005
- The results will be more doctors overall, doctors more likely to reside and practice in the northern regions and better care for patients throughout B.C.

##### **Keys of success**

- Governmental priority
- Partnership with the medical education community
- Significant investment by government and private partner
  - British Columbia Knowledge Development Fund
  - Canada Foundation
- Focused on northern regions and remote communities

### **3.1.2 BRITISH COLUMBIA CONTINUED**

#### **3.1.2.2 Tax credits to leverage Private sector investment capital**

##### **Challenge or project description**

Northern British Columbia continues to benefit from the oil and gas industry, which sustains more than 30,000 well paid jobs. Reliable roads are critical to ensuring continued expansion of one of British Columbia's most important industries. Road infrastructure that meets the needs of industry will support government's goal of attracting \$24 billion in new oil and gas investment and the creation of 8,000 new jobs in the industry within six years.

As an example of a "best practice", the Government of British Columbia has implemented an "investment matching" strategy to support northern transportation infrastructure development.

##### **Solution/ Results**

The oil & Gas Development Strategy introduced in May 2003, provided royalty credits of up to \$10 million a year toward construction, upgrading and maintenance of road infrastructure, critical to support resource exploration and development.

Industry is required to cost-share equally on proposed projects.

This initial allocation prompted a significant industry response to a call for proposals. Based on this response, the new initiatives substantially expand the program providing an additional \$20 million per year for a total of \$30 million per year, in royalty credits for infrastructure development to support oil and gas development. This level of investment will be matched by industry.

##### **Keys of success**

- Governmental priority
- Investment matching partnership with private sector



### **3.1.3 MANITOBA**

#### **3.1.3 The Wuskwatin & Keeyask Training Consortium Pre-project Training initiative**

##### **Challenge or project description**

The Pre-Project Training Initiative is a comprehensive and multi-year strategy to prepare northern Aboriginal residents for employment on proposed hydroelectric projects in northern Manitoba over the coming decade.

The initiative has been identified as a key platform from which to drive government's Northern Develop Strategy to increase individual, community and economic capacity in northern communities.

To take advantage of the employment opportunities hydroelectric projects represent, a number of First Nations in partnership with Manitoba Hydro, the Province of Manitoba and the Government of Canada are working to provide the members of their communities with the necessary skills through a variety of job related training opportunities.

An investment of up to \$60 million is being made in new community-based and regional training initiatives over the next five years to provide targeted training opportunities for 1100+ First Nation and other northern Aboriginal residents. Job placements on hydro projects in the range of 800 are anticipated.

The combination of training, jobs, business opportunities and local participation is a powerful recipe for both social and economic development.

On May 18, 2004 Canada announced support of up to \$22 million for the Pre-Project Training Initiative proposal under the Aboriginal Skills and Employment Program (ASEP).

##### **Solution/ Results**

The economic benefits to be derived from the hydroelectric projects are and will be the result of direct investment in training, jobs for northern Aboriginal residents and business opportunities related to the development.

The social benefits resulting from education and employment are profound and education and employment are widely recognized as important social determinants of health. There are obvious potential benefits to both individuals and the communities involved in the pre-project training. The community-based approach to the delivery of training not only increases the chances for success of the trainees, but also leaves a legacy of increases local capacity for the administration and delivery of programs.

The collaborative approach and equity participation by First Nations in hydro development is a market departure from past practice based on lessons learned. The Pre-Project Training Initiative is laying the necessary foundation for the expected social and economics benefits for the trainees, their communities and northern Manitoba.

### **Keys of success**

- Start early
- Active aboriginal involvement
- Comprehensive approach
- Linking training to employment and business opportunities
- Aboriginal led
- Retention supports
- Community – Based
- On the Job Training
- Sufficient Funding
- Strong Partnership at all levels



### **3.1.4 NEWFOUNDLAND AND LABRADOR**

#### **3.1.4.1 The Voisey's Bay Mine / Mill Project impact and benefits Agreements and the agency principle**

##### **Challenge or project description**

The Voisey's Bay nickel-copper-cobalt deposit was discovered in Northern Labrador in September 1993.

The Voisey's Bay project includes the construction and operation of an integrated mine and concentrator in Labrador, as well as a processing facility at Argentia, Newfoundland that will receive and process the concentrate to a finished nickel product. The project will represent an overall investment in the Province of about \$3 billion over its estimated 30-year life, including \$1,5 billion in Labrador for the Mine/Mill.

In June 2002 the Government of Newfoundland and Labrador and Inco signed a Statement of Principles to develop the Voisey's Bay project.

The Voisey's Bay site is located within the land claim areas of both the Labrador Inuit Association (LIA) and the Innu Nation. Both claims have been accepted for negotiation by the Governments of Canada and Newfoundland and Labrador, but final agreements are not yet in force.

To allow the project to proceed while the land claims are under negotiation, interim arrangements were concluded with each group in 2002. A key aspect of the agreements was a requirement for Inco/VBNC to sign individual Impact and Benefits Agreements (IBAs) with the LIA and the Innu Nation.

Maximizing local, regional and provincial economic benefits from the Voisey's Bay project has been and remains a key priority.

##### **Solution/ Results**

IBAs for the Voisey's Bay Mine/Mill were signed between VBNC and each Aboriginal claimant group in 2002. IBAs typically include measures to optimize economic benefits for Aboriginal individuals and firms and minimize any potential negative effects, including preferential employment and contracting, training, revenue sharing and environmental protection measures.

During the project's environmental assessment (EA), Inco/VBNC also committed to an adjacency policy for hiring and the purchase of goods and services for the Mine/Mill.

In the Voisey's Bay Statement of Principles (June 2002), Inco/VBNC again committed to applying its adjacency policy to hiring and contracting. Hiring by VBNC and its contractors is done as follows.

- 1<sup>st</sup> preference is given to qualified members of the LIA and Innu Nation;
- 2<sup>nd</sup> preference goes to qualified Labrador residents who are union members;
- 3<sup>rd</sup> preference goes to qualified Labrador residents who are not union members; and
- 4<sup>th</sup> preference is given to qualified union members from the Island portion of the province.

The adjacency principle also applies to project-related contracting. VBNC gives full and fair opportunity and first consideration to qualified Newfoundland and Labrador companies. The level of Innu and Inuit content and benefits are an important consideration in the evaluation of potential suppliers.

The Voisey's Bay Development Agreement was signed between the Province and Inco/VBNC on October 7, 2002. The associated Industrial and Employment Benefits Agreement (IEBA) also includes specific provisions and measures to ensure that local residents and companies benefit to the maximum extent possible.

The provincial and federal governments, VBNC, Aboriginal groups and other organizations have taken additional steps to help local residents and firms identify, prepare for and obtain project-related employment and business opportunities.

In 2003, employment activity peaked in November at 1,086 persons. Of these, 514 (47%) were residents of Labrador, and 459 (42%) were residents of the Island portion of the province. Aboriginal persons represented approximately 39% of the total workforce.

In April 2004, VBNC announced that to date it had awarded \$460 million in contracts for the Voisey's Bay project, of which 90% had gone to Newfoundland and Labrador companies. Of these, contracts with a combined value of \$290 million had been awarded to Aboriginal companies.

### **Keys of success**

- Governmental priority
- Formal partnership with private partners
- Agreement with Aboriginal to increase social and economic development of the communities
- Monitoring



### **3.1.4 NEWFOUNDLAND AND LABRADOR CONTINUED**

#### **3.1.4.2 The Torngat Recreation Commission**

##### **Challenge or project description**

The Torngat Recreation Commission (TRC) was officially incorporated on January 14, 2003, and is comprised of a board of Recreation Directors representing the six North Coast communities. The mandate of the TRC is “to develop a delivery mechanism to build Leadership Capacity in the six North Coast communities, through Community Partnerships, Training, Community Activities and Sport Programming”.

The TRC is administers two programs; the Community Capacity Building/Leadership Program and the Intra-Labrador Travel Subsidy Program.

##### **Solution/ Results**

Since incorporation, the TRC has assisted over 350 people in a variety of activities and programs and have approved over 75 proposals totaling over \$69,000. The TRC has held a total of nine workshops and clinics, attended by over 80 participants. With the assistance of the TRC, North Coast representatives have the following certifications:

- 15 certified standard first aiders;
- Regional playground inspector;
- 9 provincially certified volleyball referees;
- 10 individuals with softball coaching certificates;
- A certified kayak instructor; and
- 15 individuals with soccer coaching certificates

Staff from both the Department of Labrador and Aboriginal Affairs and the strategic Social Plan, provide a support role to the TRC.

##### **Keys of success**

- Governmental support
- Partnership with local communities
- Partnership with College and University to develop a “Northern Recreation Program”

### **3.1.5 NORTHWEST TERRITORIES**

#### **3.1.5.1 Oil & Gas infrastructure, Construction and Training**

##### **Challenge or project description**

The 1999/2000 flurry of oil and gas exploration activity in the NWT brought with it the premise that this time northerners will be equal partners with industry in any exploration and development, thereby maximizing the economic and social benefits to the north. With \$1 billion committed to be spent by industry between 2000 and 2005, the employment opportunities for northerners were quickly identified. Politicians, aboriginal leadership and people at the community level all talk about the need for education and training, so that Northerners can capitalize on the employment opportunities.

In March of 2001, with a high level of drilling activity anticipated over the five year period, Aurora College became part of a pan territorial committee, set up to determine how best to prepare floor hands for the drilling rigs.

The initial committee included representatives of education and training from the Inuvialuit, Gwich'in, Sahtu, and Deh Cho, from Aurora College, the GNWT and DIAND. Industry representatives included CAPP, PITS, Akita Drilling, and IOL.

The final decision was to deliver the training in Inuvik where a 400-meter "cased hole" would be constructed, the "well" itself becoming an incubator for future training. It was agreed that Aurora College would be the lead proponent and "operator" for the drill site.

##### **Solution/ Results**

More than 135 students applied and 84 were accepted (maximum possible) by a screening committee. 63 successfully completed. The overall success rate was 80%.

There are numerous benefits to having an established training site in Inuvik:

- The drilling lease and 400-meter "cased hole" can now be operated by Aurora College to provide a future training ground for further and more advanced training in the NWT.
- Training in the north provides the opportunity to leverage equipment, human resources, and other in-kind support from various sectors.
- Economic by-products of the project will benefit Northern business.
- An incubator for future training has now been created. Some examples included more drilling/service rig training, camp attendant, cooking programs, heavy equipment and other driver training. Also, a variety of PITS and other specialty courses could now be conducted on demand.
- The head office of the Aurora Research Institute, Aurora College is also located in Inuvik, and there are numerous research initiatives, which could coincide with the delivery of training programs (ex: environmental monitoring).

Over 40 companies from the town/ region benefited, as approximately one million dollars was circulated within the local economy.

### **Keys of success**

- Government Investment
- Industry involvement and in-kind donations
- Utilization of technology development in industry equipment
- Linking training to employment and business opportunities
- Retention of supports



### 3.1.5 NORTHWEST TERRITORIES CONTINUED

#### 3.1.5.2 Inuvik Natural Gas Project in the NWT

##### **Challenge or project description**

For a modern economy, a reliable supply of electricity is essential. NWT residents enjoy electricity services that are equivalent to the levels of service provided in southern Canada. Unfortunately, the delivery of high-quality electric service to NWT communities does not come cheaply. Electricity rates in most NWT communities rank among the highest in Canada. With the exception of communities on hydro, such as Fort Smith, Fort Providence, Yellowknife and Hay River, electrical costs can be 300 to 500 percent higher than southern towns and cities. Based on average household consumption of 675 kWh per month, for example, the monthly costs would be \$71 in McLean, Saskatchewan, compared to \$270 in Fort Liard, NWT.

The NWT is in a contradictory position regarding energy. Currently poised to become one of the largest exporters of natural gas in Canada, the cost of fuel in many of our communities remains prohibitively expensive and requires government subsidies.

An exciting prospect for NWT communities is the use of local gas for heating and electrical generation. This reduces imports, adds value to the local economy, creates opportunities for employment and could significantly reduce costs.

##### **Solution / Results**

In 1996 the Inuvik Gas Project acquired the deposit. The Inuvik Gas Project is a joint venture shared equally with Ikhil Resources, AltaGas Utilities Inc. and Enbridge Consumer's Gas to bring gas to customers in Inuvik from nearby wells. In-town distribution is by Inuvik Gas Ltd. owned by the same partners. Ikhil Resources is wholly owned by the Inuvialuit Petroleum Corporation.

After some initial testing, the Inuvik Gas Project was given the "go-ahead" in 1998. The project had two primary markets:

- To supply businesses and residents in Inuvik with piped natural gas.
- To supply fuel for electrical generation.

The project consists of a wellhead to burner-tip operation used in the extraction process. Gas is then transported to Inuvik via a 50 kilometer pipeline to be processed prior to being distributed to customers by Inuvik Gas Ltd.

It was estimated that the project will supply the community of Inuvik with natural gas for the next 20 years with a cost savings of 25%.

This project quite unique as it encompassed three phases of production: extraction, processing and distribution. Overall the project created many positive benefits:

- Reduction in energy and fuel costs for residents, industry and government;
- Reduced imports and increased value added;

Increased training and employment within the area;

### **Keys of success**

Continued service agreements with NTPC and the Community of Inuvik

### **3.1.6 Nunavut**

#### **3.1.6 The Jericho Diamond Project**

##### **Challenge or project description**

Nunavut's landmass, almost a third of Canada, is largely unexplored giving it enormous potential in mineral exploration. Among the successful explorers is Tahera Diamond Corporation. Tahera has actively explored for diamonds in Nunavut for the past seven years and discovered a commercial grade diamond kimberlite in the West Kitikmeot region of Nunavut Territory (NT). Called "the Jericho Diamond Project," Tahera plans to construct and operate a diamond mine and processing plant that, with current resources will have a minimum 8-year life and employ a total of approximately 105 to 175 people (including employees and contractors) with approximately half that number on site at any rotation.

##### **Solution / Results**

In accordance with best practices, Tahera signed an Inuit Impact and Benefit Agreement (IIBA) with Kitikmeot Inuit Association (KIA), which is the regional Inuit association of Nunavut Tunngavik Incorporation (NTI). NTI was formed under the Nunavut Land Claim Agreement (NLCA), which gave the Inuit beneficiaries, who are 85 percent of Nunavut's population, a stake in the mineral development of the territory.

##### **Inuit Impacts & Benefits Agreements**

Inuit Impact & Benefit Agreements (IIBAs) are important tools for ensuring social and economic benefits of a major development flow to Inuit. IIBAs have been utilized across the north for major developments including national parks. In the context of mining projects, IIBAs are important means for local and Aboriginal people to acquire employment or for getting contracts when they might otherwise be left out of the running. The IIBA states that its purpose is the following:

- i. To set out the terms and conditions under which KIA will support, and the provisions for Inuit involvement in the Jericho Project;
- ii. To ensure to the greatest degree possible that training, employment and business opportunities arising from the operation and development of the Jericho Project shall be made available by Tahera to Inuit;
- iii. To ensure that the Jericho Project contributes to community development and well-being in the Kitikmeot region;
- iv. To contribute to the maintenance of Inuit heritage, land based activities and harvesting;



## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

- v. To establish an effective ongoing working relationship between the Parties on the matters covered by this Agreement in a spirit of mutual respect for the goals and aspirations of each other;
- vi. To provide a mechanism through which effective communication and cooperation can take place between the Parties; and
- vii. To achieve any other goals consistent with section 26.3.3 of the NLCA.

Source: [www.tahera.com](http://www.tahera.com)

### **Keys of success**

- Strong partnership between government, industries and public and private partners have been developed to tackle specific issues.
- Long term socio-economic benefits agreement with first Inuvialuit.
- Company policies and programs in place to maximize local benefits.

### **3.1.7 ONTARIO**

#### **3.1.7.1 Northern Ontario Medical School**

##### **Challenge or project description**

Officially the Ontario Government announced the intention to create the Northern Ontario School of Medicine (NOSM) on May 17, 2001. The development of NOSM reflects a significant investment by Government, northern communities, and the medical education community.

The original investment is \$95.3M over 3 years with approximately \$33M in capital and \$60.3 M in operating. Currently the Medical School is developing its business plan for the 2006/07 fiscal year..

Ontario, like many other jurisdictions is experiencing challenges with ensuring all of its residents have equitable access to health services and it particular to physician services. The establishment of the Northern Ontario School of Medicine will have both direct benefits on access to health services and indirect benefits on Northern Ontario Communities.

##### **Solution/ Results**

- At full implementation of NOSM in 2010 there will be 224 undergraduate and 130 postgraduate medical students living and learning in Northern Ontario
- While many of the students are expected to remain practicing in Northern and rural areas after they have completed their training, the region will also see benefits of having an additional medical staff being trained in the North.
- The care provided at NOSM clinical learning sites and teaching hospitals is expected to be particularly appropriate care and treatment for Northern residents.
- The economic benefits to the local community from additional faculty and students will have a significant multiplier effect.
- Faculty members will participate in research activities, some of which could lead to commercialization opportunities and the expansion of research and product development in the medical and biotechnology sector.

## **Keys of success**

- Governmental priority.
- Significant investment by government, northern communities and the medical education community.
- Partnership with universities and education sector.
- Global vision.
- Utilization of technology in the development of leading edge expertise in distance education.



### 3.1.7 ONTARIO CONTINUED

#### 3.1.7.2 Mineral industry Cluster

##### Challenge or project description

The mineral industry cluster creates employment through its business support services such as supplies and services, legal and accounting, consulting services, etc.

The Ontario Mineral industry Cluster's production and supply and services represent approximately \$10 billion in 2001.

This cluster is a geographically connected group of inter-related industries and institutions that compete but also co-operate. Clusters have been shown to create wealth and attract investment.

##### Solution/ Results

Mining and mineral industry makes a significant contribution to the province's economy and continues to be a key industry in Northern Ontario's economy.

To further maximize the potential of the province's mineral industry cluster, the Government of Ontario announced the creation of the Ontario Mineral Industry Cluster Council (OMICC) in November, 2003. This council is mandated to foster a sustainable and rising standard of living from Ontario's mineral industry and to bring together industry and organizations to create more prosperity for Northern communities.

The Ontario Mineral industry Cluster Council will examine ways to create or attract more high quality jobs to the North through mining related, value-added activities, such as exploration and development of the next generation of very deep mines, and new innovative technology developments in production, milling, smelting, refining and rehabilitation.

##### Keys of success

- Governmental priority
- Creation of the Ontario Mineral Industry Cluster Council
- Strong partnership with industries and institutions
- Joint venture with leading edge research and development.
- Support of the federal and provincial governments as well as the private sector.

### 3.1.8 QUEBEC

#### 3.1.8 Hydro-Québec Practices and Maximization

##### Challenge or project description

For Hydro-Québec, increased generating capability is also made necessary by the recent narrowing of the gap between available output and contractual commitments, making it more difficult to manage risks related to variations in runoff.

Hydro-Québec's *Strategic Plan 2004 – 2008* relies on the development of its generating capability by continuing to favour renewable energy and developing Quebec's hydroelectric potential. The Plan sets out two objectives:

1. Hydro-Québec plans to increase its annual generating capability by 10 TWh by 2008, mainly by commissioning new facilities, equivalent to 6.5 TWh.
2. Hydro-Québec is taking immediate steps to move up the start of construction on projects that are at the feasibility study stage or awaiting authorization. It expects that this will increase its generating capability by 11 TWh.

The company's intention to move up the commissioning dates of new generating facilities is a significant challenge. This Strategic Plan objective will require close collaboration with the various stakeholders (government departments, local and regional communities and Aboriginal communities). Some of the challenges to be met are:

- Maintaining productive relations between Hydro-Québec and federal and provincial departments so that the latter provide, with due dispatch, the government authorizations required for the construction of the facilities.
- The need to further optimize completion timetables.
- Hydro-Québec's expressed desire to meet the three conditions necessary to carry out its projects, including "being well received by local communities."
- The need to continue efforts to encourage economic spin-offs from the projects in the host communities.

##### Solution/ Results

The first step is to maintain existing generating facilities in optimum condition in order to ensure reliable energy supply for its customers. Between 1990 and 2003, Hydro-Québec invested in refurbishing its facilities and improving their performance. These major undertakings resulted in a productivity gain of 4.2 TWh. The company is continuing this work, aiming for an additional 0.6 TWh in productivity gains by 2008.

Given that the new hydroelectric developments will in part be located on Aboriginal lands:

- Rapides-des-Cœurs and Chute Allard powerhouses (150 MW) – Atikamekw communities

- Eastmain- 1A Powerhouse and Rupert Diversion (770 MW) – Cree communities
- Romaine Powerhouse (1 500 MW) – Innu communities

a number of measures will be required if the new projects are to be successful. They are:

1. Maintaining relations between the governments and the Aboriginal communities – signing of the Agreement with the Cree community (Peace of the Braves) and the Agreement-in-Principle with the Innu community.
2. Signing of partnership agreements by Hydro-Québec and local and regional communities (municipalities, RCMs) and the Aboriginal communities affected by the projects help ensure that they are well received by the communities.

Hydro-Québec's approach of fostering economic spin-offs from its projects in the regions concerned is also a way of securing the success of future projects. So far, Hydro-Québec's efforts have been acknowledged by the communities (e.g.: Sainte-Marguerite – 3, Eastmain – 1, Toulouste and the refurbishing of powerhouses in Abitibi-Témiscamingue, the Mauricie region, the North Shore, etc.).

### **Keys of success**

- Continue to optimize the existing generating facilities in order to achieve productivity gains.
- Make every effort to optimize construction timetables and the commissioning of facilities that are currently being built and those to come.
- Maintain ongoing harmonious relations with local and regional communities. Hydro-Québec will continue its public consultations with host communities, which will enable local and regional communities to closely monitor generation projects from start-up through to commissioning.
- Continue to propose partnerships for all new projects. Acceptance by local communities is a necessary condition to the development of hydroelectric potential.
- Follow up on Hydro-Québec's efforts to foster job creation and economic spin-offs in the different regions



### **3.1.9 SASKATCHEWAN**

#### **3.1.9 Uranium developments in northern Saskatchewan**

##### **Challenge or project description**

Northern Saskatchewan is the largest uranium producer in the world. The region's three uranium mines and three mills account for more than 30% of the world's natural uranium production.

The uranium sector has a long history in northern Saskatchewan. A new phase of uranium mining developments began in the 1990s with the commencement of two new mines and one mill. Preceding the developments, in 1991, the Canadian and Saskatchewan governments announced a joint review of five new uranium developments proposed for northern Saskatchewan. The joint federal/provincial panel reviewed the environmental, health, safety, and socio-economic impacts of the proposed projects, in addition to the historical impacts of the uranium industry in northern Saskatchewan; the public was actively involved in consultations. The recommendations from the panel discussions helped to further shape, and build on past successes of, the uranium sector's contributions toward maximizing the social and economic benefits for residents of Saskatchewan north. Recommendations from the panel hearing were also applied to existing uranium operations.

In response to the joint panel, the provincial government committed to making changes to uranium mineral surface lease agreements, including strengthened efforts to ensure maximum socio-economic benefits from mines to residents of Saskatchewan north. In addition, other major changes were undertaken to improve the strategies and institutional operations. Particular initiatives include: the Multi-Party Training Plan (MPTP) and the Environmental Quality Committee (EQC) supported by a Northern Mines Monitoring Secretariat (NMMS).

##### **Solution/ Results**

Mining companies operating in northern Saskatchewan are required to negotiate a surface lease agreement (SLA) with the provincial government every time a new project is planned. The agreement provides the proponent with land tenure, ensures adequate provincial regulatory control over environmental protection, worker health and safety, and socio-economic benefits for residents of Saskatchewan's north from northern mining operations.

Each SLA requires the proponent to enter into a separate Human Resource Development Agreement (HRDA) in which the employer commits efforts to increase the hiring, training, advancement of residents of Saskatchewan's north, and increased utilization of northern contractors and businesses. Annual Human Resource Development Plans target job categories for northerner preference or advancement, and northern communities whose residents will be given priority for targeted jobs

The Multi-Party Training Plan (MPTP) is a cooperative training-to-employment initiative among public, private, and non-profit organizations. First negotiated in 1993 and renewed twice (1998, 2003), it addresses barriers to residents of Saskatchewan's north getting jobs, combines resources, and links training directly to the mineral sector's demand. Each MPTP builds on the successes of the previous plans and responds to the changing labour market needs.

The Northern Saskatchewan Environmental Quality Committee (EQC) provides communication linkages among northern communities, the uranium industry, and government departments and agencies tasked with regulating the industry. The EQC gives northern communities opportunities to participate in the monitoring and regulation of the uranium mining industry and influence decision-making in the uranium industry.

In addition to the initiatives outlined above, and in-line with commitments made in SLAs, the uranium industry has taken a proactive approach to supporting northern development, undertaking a number of strategies that contribute to the overall well-being of residents of Saskatchewan's north.

Highlights of the industry's economic impact in northern Saskatchewan follow:

- The percentage of residents of Saskatchewan's north directly employed by uranium companies at mine sites has increased from 44% in 1992 to 50% in 2003.
- The percentage of northern contract workers at uranium mine sites has increased from 40% in 1992 to 67% in 2003.
- In 2002, northern businesses received \$67.55 million (40.4 per cent) of contract goods and services.
- In 2003, the uranium industry employed an average of 770 residents of Saskatchewan's north (long-term employees and long-term contractors). Seventy per cent of all northern workers continue to live in northern Saskatchewan, taking home wages of more than \$23 million annually.

Cameco Corporation has 16 significant northern suppliers, 10 with majority Aboriginal ownership.

### **Keys of success**

- Governmental Priority
- Formal Partnership with Private Partners
- Continued support from:
  - Province of Saskatchewan
  - Northlands Collage
  - Aboriginal Authorities
  - Northern Mining Industry
- Retention of supports
- Linking training to employment and business opportunities
- Continued monitoring of industry

### **3.1.10 YUKON**

#### **3.1.10 2007 Canada Games Winter a Pan-Northern Approach**

##### **Challenge or project description**

An exciting opportunity is on the horizon for northern people and industry with the Canada Winter Games, which are scheduled to take place in Whitehorse Yukon from February 24<sup>th</sup> to March 10<sup>th</sup> of 2007. Yukon's Premier Fentie, Premier Okalik of Nunavut and Premier Handley of the Northwest Territories are partnering to deliver a Pan-Northern approach to hosting these Games.

The North will be provided an exceptional opportunity to host the South. It will allow all three territories to join hands in showcasing our culture, our people, our communities, as well as our many economic opportunities. The marketing potential of this partnership is beyond anything that the North has experienced to date.

##### **Solution/ Results**

We have begun to see the economic impact of the Canada Winter Games. Construction has already increased. The very numbers of those attending and participating in the Games will have a major impact on the economy.

One of the positive social impacts from the Games will be the development of a Pan-Northern team of organizers and workers who can be called upon for other Pan-Northern projects.

##### **Keys of success**

- Pan-Northern Approach
- Premier involvement



## **3.2 Synthesis of maximization examples identified internationally by the Observatoire de l'École nationale d'administration publique (Énap)**

### **3.2.1 Global Maximisation Policy**

This section includes a review of global maximization policies. The following regions were reviewed by ENAP

- European Union
- Amazon Basin
- Austria
- Denmark
- India
- China

#### **Context**

##### **Prior situation**

- Extensive marginalization of indigenous populations can be seen, due to poverty and isolation.
- Large-scale natural resource development gradually leads to resource depletion.
- Local populations lack education, training and the capacity to assert their rights, leading to a population drain, mainly of youth, toward urban centres.
- Local populations in developed and developing countries alike draw little benefit from socio-economic spin-offs from natural resource development.
- Environmental degradation.

##### **Changing environment**

- Governments want to include populations in the economic development of their territories and the development of their resources.
- Governments are also trying to re-establish communication and improve populations' standard of living.
- Desire to maintain the level of economic activity of regions in decline.
- Development of integrated development approaches.

#### **Stakeholders**

##### **Lead agencies and affiliates**

- International aid agencies (World Bank and others) are funding development programs.
- In some cases, international agencies specializing in socio-economic and environmental development oversee and coordinate development programs and provide technical support.
- In other cases, public servants and academics support local communities in implementing development programs.
- Government initiatives and partnership. (Denmark, Austria, European Union).

## **Approach**

### **Objectives**

#### **Global maximization policies :**

- Improve local populations' standard of living by maximizing projects' socio-economic spinoffs.
- Support community initiatives that generate income and business opportunities.
- Encourage development of local products by creating business microprojects.
- Forge partnerships among government agencies, private enterprise and local populations.
- Set up exchange and knowledge networks among local populations.
- Support regional development.

### **Processs**

- Through international funding, socio-economic development programs initiated for communities, especially marginalized communities.
- Mutual savings fund established and micro-credit system set up to generate savings at the local level (Statoil International).
- Forest management plans developed.
- integrated natural resource management program (Amazon).
- Public-private environmental management partnership (Austria).
- Economic development strategy.

### **Success Factors**

- Local populations are involved in decision-making and follow-up.
- Cultural particularities and local lifestyles are respected and considered to avoid conflicts with populations.
- Awareness-raising and involvement of all stakeholders.
- Government willingness asserted to guide and accompany development.

## **Results**

- Integrated approaches based on participation and involvement of socio-economic stakeholders.
- Improved natural resource management practices.
- Multi-resource development of territories.
- Skill building for populations, notably through education, training and small business management.
- Additional funding freed up to create new income-generating activities.
- New management and rational use practices developed for wood and other natural resources.
- A better sustainable development vision developed.
- Regional economic diversification.

## **3.2 Synthesis of maximization examples identified internationally by the Observatoire de l'École nationale d'administration publique (Énap)**

### **3.2.2 Mining**

The following regions have been examined by ENAP

- USA (Alaska)
- Germany
- Australia
- Spain
- International (Rio Tinto)

#### **Context**

##### **Prior situation**

- Single-industry, geographically isolated cities grappling with deep-seated changes and major decline following mine closure.
- Lacking and inadequate social infrastructures to meet the needs of aging populations facing a youth drain as a result of a smaller job market in the mining industry.
- Mining communities were unable to benefit from the presence of mining industries, which did not plan plant closures.
- Mining communities are lacking in training and income diversification (main characteristics of single-economy cities in decline).
- No obligation to include local and regional populations in development and profits.

##### **Changing environment**

- Governments using economic diversification and reconversion projects to ensure more sustainable development while preserving local cultures.
- In Germany, a vast reconstruction operation was launched in a former Eastern German mining region following reunification.
- In Alaska, the *Alaska Native Claims Settlement Act* altered the development context in the northwestern region, which is geared to spinoffs from development of the largest zinc mine in the world.
- Context of mining activity closure and local pressure for industrial reconversion of the region.

#### **Stakeholders**

##### **Lead agencies and affiliates**

- Partnership programs, new legislation and new agencies established.
- National governments are main development program funders, along with international agencies.
- Regional authorities manage revitalization programs for the most part.
- Large multinationals develop mining resources, sign agreements with government authorities, and apply legislation.



- Regional communities ensure that government-industry agreements are respected.
- Teck Cominco in Alaska pays royalties proportional to the benefits it achieves to the regional agency that sets up and manages socio-economic and community development programs by Teck Cominco.

### **Approach**

#### **Objectives Mining:**

- Funding for community development initiatives on jobs, environmental protection, health and human rights.
- Funding for regional transport, education and health infrastructures.
- Skill building and training provide labour market access.
- Conservation of traditional lifestyle and local culture.
- Sharing of mining development spinoffs.
- Industrial reconversion of depressed areas.
- An environmentally- and socially- friendly approach.

#### **Process**

- Application of overall agreements between major mining companies and governments.
- Some large multinationals, such as Rio Tinto, have internal policies on local and sustainable development for populations and territories being developed.
- Partnership with local and regional populations.

#### **Success factors**

- The agreements are strategic alliances and joint tripartite work platforms (government-industry-regional communities).
- Regional populations involved in decision-making and implementation.
- Long-term, sustainable development perspective.
- Respect for characteristics and specific realities of regional communities and concern for preserving cultural identity.
- Taking a new approach to the relationship among humanity, nature and technology.
- A gradual, slow-and-steady approach.
- Some level of bargaining power parity. (Obligation).
- Follow-up agencies. (Monitoring).

### **Results**

- Economic revitalization and reconstruction of regions through creation of new income-generating activities, youth training, and lifestyle enhancement, while preserving the environment and communities' cultural dynamic.
- Improved road and socio-economic infrastructures.
- Job creation at the local or regional level.

## **3.2 Synthesis of maximization examples identified internationally by the Observatoire de l'École nationale d'administration publique (Énap)**

### **3.2.3 Energy**

The following regions have been examined by ENAP

- Turkey
- West Africa
- Myanmar (Total)
- Angola (Texaco)
- Nigeria (Statoil)

#### **Context**

##### **Prior situation**

- Declining, sometimes war-ravaged regions.
- Agriculture- and fisheries-based subsistence economy.
- Population drain towards cities.
- Disadvantaged regions in terms of health, education, employment and infrastructures.
- Major energy deficit slowing development of economic and industrial activities.
- Difficult to attract investors because energy infrastructures lacking.
- Populations not benefiting from spinoffs of oil resource development in their regions.

##### **Changing environment**

- Large-scale project development (hydroelectric, gas and oil infrastructures).
- Massive investments geared to spin-off effects to stimulate the regional economy.
- Often supranational projects overseen by large multinationals.
- Multinationals willing to include local populations.

#### **Stakeholders**

##### **Lead agencies and affiliates**

- The national or supranational government supervises and coordinates projects executed by or with multinational(s).
- Partnership with international development agencies.

## **Approach**

### **Objectives Energy:**

- Develop an energy infrastructure network.
- Improving living conditions and income levels of regional populations.
- Create a new economic dynamic by developing agriculture and investment in health, education, transport, tourism and telecommunications.
- Stimulate regional economy by attracting industries.
- Create job opportunities.
- Produce a benefit and long-term jobs for local populations.
- Develop energy resources in an environmentally and socially friendly context.  
(Multinational)

### **Process**

- Private-public project funding, in most cases majority private.
- Projects based on a joint agreement between government(s) (state enterprises) and multinational(s).
- Projects include socio-economic programs for neighbouring communities.
- Management of socio-economic programs is decentralized toward local communities.
- The main program components are linked to : health, education, economic development and small business assistance.

### **Success factors**

- A previous planning and stakeholder involvement stage.
- A long-term, sustainable development perspective.
- Unity of command for project supervision and coordination by government.
- Creation of arm's-length agencies to conduct follow-up.
- Use of environmentally-friendly procedures for extraction and transport.
- Massive investment to encourage new business start-up.
- Studies conducted on socio-economic and cultural characteristics and needs identification.
- Involvement of regional and local populations in program implementation.
- Creation of local committees sometimes responsible for managing development funds.



## **Results**

- Significant increase in energy production (electricity, gas and oil).
- Construction of transport infrastructures (road, marine, air and rail).
- Massive job creation, especially during the construction stage (impossible to determine the proportion reserved for local workers).
- Increased energy supply capacity, attracting investors and new companies.
- Energy projects also bring substantial energy savings.
- Socio-economic programs foster :
  - construction and renovation of dispensaries, hospitals, roads, bridges, etc.;
  - agri-food development and sheep and cattle breeding;
  - small business development;
  - creation of local and regional organizations.

### **3.2 Synthesis of maximization examples identified internationally by the Observatoire de l'École nationale d'administration publique (Énap)**

#### **3.2.4 Forestry:**

The following regions have been examined by ENAP

- Tasmania
- Russia
- Norway
- Bulgaria
- India

#### **Context**

##### **Prior situation**

- Subsistence economy marked by low standard of living, low income and ubiquitous unemployment.
- Tension between forestry industry and rural communities, linked to usage conflicts.
- Low contribution of private enterprise to local socio-economic development.
- Low level of wood resource processing.
- Low value-added linked to forestry resources development.
- Low level of regeneration of private forests and absence of sustainable development perspectives.
- High population living in forest regions, heavily dependent on forest products for subsistence.

##### **Changing environment**

- Effort to maximize benefits from sustainable, responsible development of regional natural resources.
- New forest management system based on application of the sustainable development principle and the inclusion of local populations in forest management.
- New forest management perspective based on habitat preservation.
- Scandinavian private forest owners are more interested in aesthetic and recreational forest qualities than in the benefits of selling wood.
- Development of the inhabited forest concept.

#### **Stakeholders**

##### **Lead agencies and affiliates**

- Government is defining a legal framework and setting sound forest management and certification rules.
- Industry is complying with certification rules (code of practice, etc..) and integrating personnel assigned to forest practice supervision (regulatory officers).
- Community partnership agencies established (cooperative – village council).
- Partnership with research and academic communities.

## **Approach**

### **Objectives Forestry:**

- Help developers introduce good forest practices.
- Foster forest regeneration, notably through methods adapted from soil regeneration.
- Give priority to research and educating the population on forest resource protection.
- Coordinate resource inventory and commercial market development.
- Facilitate production of forest practice follow-up plans and mechanisms.
- Improve forest estate management.
- Develop a sustainable forest development vision.
- Biodiversity.

### **Process**

- Establishment of numerous certification and code of practice programs to protect habitat, cultural heritage and forest aesthetic.
- Gradual introduction of these new practices into government-industry cooperation.
- Creation of partnership mechanisms to optimize forest resources and reduce red tape.
- Creation of forest practice boards.
- Inhabited forest concept.

### **Success factors**

- Recognize and clarify the rights, roles and responsibilities of forest resource management stakeholders.
- Optimize use and development of skills and resources.
- Encourage development of best forest practices.
- Respect local values and customs.
- Encourage companies to participate and invest in developing local projects.
- Identify and implement exemplary sustainable forest resource management approaches.
- Survey and identify local forest resources for controlled development and protection, managed from a sustainable local development perspective.
- Overall rural development policy.
- Joint management and partnership.
- Some level of bargaining power parity. (Obligation).
- Follow-up agencies. (Monitoring).

## **Results**

- Certification will make industries more competitive on international markets while ensuring better forest preservation. More and more consumers are asking for this type of certification.



- Between 90% and 95% of Scandinavian forests are subject to sustainable, certification standard-compliant management.
- In developing countries (India, Bulgaria), programs are sponsored by domestic and international management agencies whose activities centre on good practices and joint forest management that includes regional communities.
- Local organizations established in partnership with stakeholders.
- Long-term employment and forest development.

### **3.2 Synthesis of maximization examples identified internationally by the Observatoire de l'École nationale d'administration publique (Énap)**

#### **3.2.5 Transport Infrastructure Systems**

The following regions have been examined by ENAP

- Sub-Saharan Africa
- Alaska
- Sweden
- China
- Greenland

#### **Context**

##### **Prior situation**

- Communities in developing countries are geographically isolated from one another because of a lack of road links.
- Transport costs in developing countries are exorbitant and road maintenance is practically non-existent.
- Transport costs in developed countries are also high because of strict heavy transport regulations that drives up the price of products.
- Increased transport costs are detrimental to countries' trade, making them less competitive on international markets.
- Economic development is stymied in regions with defective transport systems.

##### **Changing environment**

- International agencies such as the World Bank have focused in recent years on improving transport infrastructures.
- Improved roads will enable developing countries to increase the level and quality of basic services : health, education and their economic development potential.
- Legislation and regulations introduced (Transport Plan).
- Development of resource regions requires adapted, efficient transport infrastructures.
- Inefficient, unprofitable maritime transport operations. (Greenland).
- Privatization.

#### **Stakeholders**

##### **Lead agencies and affiliates**

- The World Bank and international development aid agencies are defining a general framework and overall transport policies.
- The World Bank and international aid agencies are funding and managing transport programs and policies in partnership with governments (Africa – China).
- Governments are responsible for measures and planning (Alaska – Sweden).
- Participation by numerous partners and regional and local organizations (Alaska – Sweden).
- Private enterprise (Royal Arctic Line)

## **Approach**

### **Objectives Transport Infrastructure Systems:**

- Improved road, air and maritime transport infrastructure systems.
- Labour mobility and enhanced capacity to attract businesses and develop trade.
- Better access to natural resources.

### **Process**

- Transport policies and strategies introduced based on :
  - improved rural and urban transport;
  - labour mobility;
  - railway restructuring;
  - road management decentralized to communities;
  - contracts awarded to small businesses and regional labour to carry out work;
  - resource access
  - transport plan developed in partnership with all stakeholders.
- Maritime operations privatized and partnership with government. (Greenland)

### **Success factors**

- Presence of numerous funders at the international level (Africa– China).
- Integrated, intermodal transport infrastructure systems introduced.
- The approach developed in Alaska for preparing transport plans helped enhance access to natural resources (minerals, gas and oil), improve transport of those resources to market, and link communities, resulting in more secure transport and a more diversified local and regional economy.
- Partnership with local and regional populations for improved needs identification.
- Partnership with stakeholders.

## **Results**

- Developing countries have committed to major transport investment programs.
- Improving transport infrastructures has helped eliminate regional and international trade barriers and bring regions closer together.
- In developed countries (Sweden, Alaska), involving regional communities in decision-making has helped improve community transport needs identification.
- Profitable public-private partnership. (Greenland).



4. “Maximizing impacts from projects”: summary review and findings

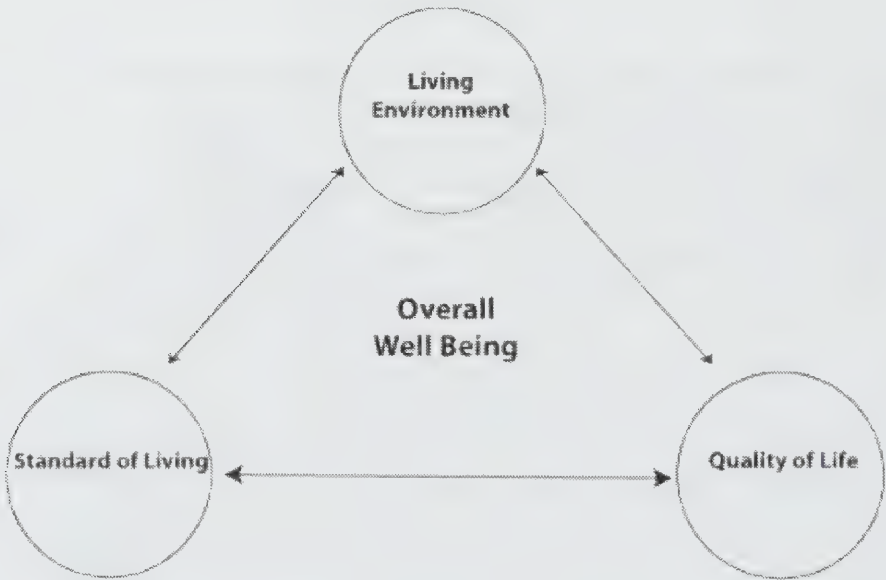
4.1 Concept of maximization and its limitations

The objective of maximizing the economic and social impacts of projects is in itself relative. Maximization involves ensuring that there are as many spinoffs as possible and that those spinoffs are as beneficial as possible. The natural assumption is that economic and social impacts of projects are proportional to the size of the investments. Furthermore, it is implicitly understood that only positive impacts will be maximized; negative impacts must actually be minimized.

This vision of maximization is limited, as it does not encompass the sustainable development perspective, that is, the integration of the projects into the environment of the communities concerned and their impact on the standard of living, quality of life and living environment of the people in impacted communities. Even when considered from a sustainable development perspective, the objective of maximizing economic and social impacts is still quite relative, as assessments of the impacts of projects in terms of integration into the local environment vary depending on the viewpoints of those involved and the measurement instruments employed.

In any event, if the ultimate aim of maximizing economic and social impacts, as the Northern Development Ministers Forum hopes, is to improve the well-being of the population in general, there is a need to act not only on the economic environment, which can affect standard of living, but also on the man-made and natural environments, that is, the living environment, and, finally, on the social environment and quality of life. The working group sees these dimensions as inseparable and therefore believes they must all be taken into account in any approach aimed at maximizing economic and social impacts (see Figure 1).

Figure 1:  
Maximizing Economic and Social Impacts  
General Concept



## 4.2 Basis for maximization and convergence toward sustainable development

The review of Canadian and international maximization practices completed by the working group shows a clear convergence between the maximization of economic and social impacts of projects and the principles of sustainable development as set forth in the final declaration of the 1992 United Nations Conference on Environment and Development, the “Rio Declaration<sup>1</sup>,” which among other things stresses the need to:

- Meet environmental and developmental needs of present and future generations;
- Ensure equity between development and environment;
- Include environmental protection as an integral part of the development process;
- Eradicate poverty as an indispensable requirement for sustainable development;
- Give special priority to the least developed and most environmentally vulnerable regions;
- Protect and restore the health and integrity of the earth’s ecosystems;
- Reduce and eliminate unsustainable practices;
- Strengthen endogenous capacity-building for sustainable development through exchanges of scientific and technological knowledge;
- Provide appropriate access to information to all concerned citizens and the opportunity for them to participate in decision-making processes;
- Use a precautionary approach to protect the environment from threats despite lack of full scientific certainty;
- Adopt the approach that the polluter should bear the cost of pollution as part of the development costs;
- Undertake environmental impact assessments as national instruments, subject to decisions by competent national authorities;
- Encourage the participation of young people, women and indigenous people;
- Recognize and support the identity, culture and interests of indigenous people.

These are not all of the principles contained in the Rio Declaration, but rather those germane to a review of practices for maximizing the economic and social impacts of major projects in the North or similar regions, which led to the identification of success factors for maximizing the economic and social spinoffs of the projects in question.

Maximization initiatives that achieve expected results apply the basic principles set out in the Rio Declaration. This implies a direct linkage between maximization success, regardless of the scale of the projects, and the sustainable development perspective. This remarkable convergence suggests that project size in itself provides no assurance of the maximization of impacts. And perhaps more importantly, maximization cannot be achieved without a deliberate, explicit effort to involve the social environment in the development project and to take into account the impacts of the development on the natural environment.

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<sup>1</sup> Report on the United Nations Conference on Environment and Development. Rio de Janeiro, 3-14 June 1992. Annex I. Rio Declaration on Environment and Development. URL: [www.un.org/documents/ga/conf151/aconf15126-1annex1.htm](http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm) (2004-07-09).

### **4.3 Prerequisites to maximization**

Reviewing Canadian and international best practices, highlight the importance of integrating projects into the living environment of impacted communities in a sustainable manner. First, maximization is a initiative which requires deliberate and measurable effort.

Second, there is a need to take into account the perspective of the larger community. The views of the project proponents must be juxtaposed with those of governments and local agents, individual citizens, citizens' associations and businesses.

As outlined in the following section, maximization can be achieved if certain conditions are met. These are discussed in detail in the following section.

Finally, success depends on a number of factors, especially those outlined in Section 4.5.

### **4.4 Maximization conditions for achieving more and better outcomes**

An empirical examination of best practices with regard to maximization in Canada and abroad has revealed a number of common characteristics. Some of these are common to every example. They apply to all projects, no matter the scale of the development. These practices include: resource mobilization, government action, local participation, continual integration of innovative practices, and use of a monitoring system.

Most of the other characteristics noted in best practices underlie these common characteristics and are along the same line: interest in ensuring that expected benefits are shared, freedom of local actors to express their views, and arbitration by the state or supranational organizations to protect the interests of those involved within a mediation framework.

#### **4.4.1 Resource mobilization**

Any development project involves the mobilization of financial, human, information, technological and other resources. In the best practices reviewed, the objective of maximizing project spinoffs appears to have been given priority.

In most cases, resource mobilization is considered in a broader context to cover the needs of local populations as both partners and beneficiaries. An example is Denmark's National Strategy for Regional Growth, which mobilizes the actors in each of the targeted regions around a national goal and makes the most of their respective contributions.

This approach is consistent with the maximization conditions mentioned earlier, in that success relates to including communities as partners in the conduct of sustainable development projects. The overall aim being to improve their living environment. Recognition of the need to share the benefits of projects with impacted communities, to



cover their economic and social concerns, is one of the requisite conditions of maximization. An excellent example of this is found in the hydroelectric development work being done in Northern Manitoba. The projects are developed within the framework of ongoing dialogue with local communities and provide for the identification of local needs related to the project development, including the sharing of the project benefits.

The same is true of the tar sand operations in Alberta, where regional partners help to identify local and regional issues and conclude deals on maximizing spinoffs.

A further example is Hydro-Quebec's practices aimed at fostering regional spinoffs from its projects by setting up maximization committees.

The importance of resource mobilization and the inclusion of local partners appears to be one of the major lessons learned from the review of best maximization practices in Canada and elsewhere.

### **4.4.2 Government action**

Sustained government involvement was a constant in all best practices reviewed, whether at the subnational (regional or local) or national level, or through paragonovernmental or supranational bodies acting on behalf of the state. The focus of government involvement tends to be on creation of a consistent framework within its boundaries, not only through legal instruments and environmental assessment mechanisms, but also through international arrangements and agreements.

Governments use their resource allocation powers to impose rules and practices based on a constantly evolving legal and regulatory framework, as well as international arrangements and agreements ratified following the release of the Rio Declaration. For instance, the Government of British Columbia has introduced royalty credits for companies in order to support the upgrade and maintenance of roads, critical infrastructure for the development of oil and gas projects.

The important role which can be played by supranational bodies is clear in several of the practices examined, such as the Regional Assistance Program for the Indigenous Peoples of the Amazon Basin organized by the International Agriculture Development Fund. One good illustration of cooperation between different tiers of government is the Ecological Project for Integrated Environmental Technology (ECOPROFIT), in which the city of Graz is working closely with Austria's national Environment Department to improve the community's environment and to help other Austrian and European cities benefit from the project's outcomes.

According to the review of best practices, government action appears indispensable to ensure that local populations and communities are taken into account with respect to the maximization of the economic and social impacts of projects. For example, it was the Government of Ontario that prompted the creation of industrial clusters under the aegis of the Ontario Mineral Industry Cluster Council. The Council's work made it possible to maximize the activity of local economic agents in Northern Ontario by



fostering interaction amongst them. Also, the commitment of the Territorial Leaders of the Northwest Territories, Yukon and Nunavut will enhance the scope of the Canada Winter Games to be held in the Yukon in 2007 and ensure new spinoffs.

Some governments go beyond information, allotment and regulation, taking on the role of adjudicator or mediator between project proponents and local partners. Various adjudication mechanisms have been set up, often within the framework of the application of environmental assessment processes. Such mechanisms make it possible to ensure that projects are properly documented, take into account the social and economic concerns of the targeted communities, and provide for measures to mitigate and reduce impacts. For example, the Government of Newfoundland and Labrador played a crucial role in the negotiation of various agreements surrounding the Voisey's Bay mine project, including impact and benefit agreements between Inco and the Innu and Inuit communities, as well as an agreement on industry and employment benefits.

Finally, the state can also be the main proponent of some projects. Sometimes maximizing efforts extend beyond boundaries. For instance, the ambitious Tumen River Area Development Project is the result of cooperation among the governments of China, North Korea and South Korea, Mongolia, Russia and Japan, with the participation of the United Nations and the contribution of financial and human resources by the United States.

#### **4.4.3 Community participation**

The best practices reviewed, based on available information, indicate a direct correlation between the degree of success in attaining maximization objectives and citizen participation; or more broadly, the community concerned. However, the extent of participation can vary considerably, as can the form it takes: tacit consent, more or less explicit expression of concerns, defined requests or demands, negotiation of formal agreements, exercise of more or less coercive power over proponents' operations, are just some examples.

Some prerequisites to citizen participation seem particularly advantageous for the attainment of the maximization objective. These are the ones that translate the very concept of participation into something more tangible: sustained access to information, expertise, forums for discussion, and decision-making processes. Sponsored by the European Commission, the LEADER+ project [links between actors for the development of the rural economy] is one example. Local participation is in fact one of the key foundations underlying the success of initiatives carried out under this project.

Project information is made available to citizens, but often the format, language and content are too technical for non-specialists, making it difficult for ordinary citizens to take informed action. As a result, local stakeholders must often seek out other resources, including the services of experts who can decipher the information and identify tangible issues, problems and concerns based on the particular characteristics of the communities concerned. The practices reviewed revealed that ensuring sustained citizen participation requires appropriate levels of knowledge and information, as well as having available time and financial resources.

The local populations must be able to study and discuss planned projects, make representations, and formulate proposals and ideas for mitigation measures to facilitate integration of the projects into their living environment. Access to different forums for discussion and decision making to encourage broader participation by local partners appears to be another important dimension to the maximization project impacts.

The transportation infrastructure plan for southeastern Alaska aimed at improving transport by sea, air and local roads highlighted the importance of involving local residents in the planning stages, especially with regard to identifying their needs and priorities for action.

Beyond the issue of ensuring diverse viewpoints and opinions, timing is also important. Including concerned citizens from the outset of the planning process fosters better integration of projects into concerned communities. Tapping into local knowledge that includes specifics about the natural, social and cultural environments would be beneficial to maximize the impacts of projects in communities. This condition for maximization of impacts is evident in a number of practices examined, especially those where local Aboriginal people are engaged in discussion throughout the development stages, as in the case of the Eastmain River hydroelectric project in the Nord-du-Québec region of Quebec.

### **Continual incorporation of innovative practices**

The review of best practices indicates that development methods are changing, moving farther and farther away from traditional models. The most significant changes involve the way in which the human environment is now seen as a separate component and is broken down into different aspects, such as standard of living, quality of life and living environment. One example of this innovative approach is the program to revitalize the Bitterfeld-Wolfen region in Germany in the wake of the closure of the coal facility in Liepzip. This operation was the economic backbone for the entire region. The revitalization project completely transformed the region's natural and economic environment by pooling the knowledge of economists, a landscape architect, former miners, artists and local residents.

Another noteworthy example is Norway's Living Forests project, in which quality and performance level standards were established with regional owners and other stakeholders for forest certification and improved long-term management.

#### **4.4.4 Introduction of monitoring system**

The review of Canadian and international practices revealed that monitoring is an important key to successful maximization of impacts. Various monitoring mechanisms have been incorporated into several of the examples reviewed, such as the Red Dog mine in Alaska and the project to develop uranium deposits in Saskatchewan. But the review also revealed other dimensions of the monitoring issue. It revealed that monitoring mechanisms most often target economic spinoffs, such as the number of



new jobs that are filled by locals. It also revealed that project spinoffs, especially those related to social aspects and integration into a community's living environment, are the most difficult to forecast, the most poorly documented, and the most unlikely to be monitored.

Generally speaking, there is a supposition that positive economic spinoffs from projects automatically lead to equally positive social impacts. A higher standard of living is associated with a consequent improvement in the quality of life and the living environment of the people concerned. This is not always the case, however. Setting aside the review of best practices for a moment, there is abundant literature relating to the identification and tracking of the social impacts of projects in Northern regions that indicate an improved standard of living in communities can lead to: deterioration of family living conditions, increased social differentiation, the erosion of social cohesion, increased exclusion, more stress and other similar phenomena. A number of modeling projects involving impacts on the natural environment has been carried out in the past few decades.

Similar projects designed to improve project tracking via instruments adapted to measure impacts on the human environment are needed. Such projects could build on the numerous conceptual and methodological breakthroughs made in Canada in the past decade at least in the area of research into quality of life, living conditions and well-being, for example, by developing innovative large-scale surveys, such as the Survey of Living Conditions in the Arctic, as well as on major research into social issues related to development carried out under the direction of Canadian researchers.

#### **4.5 Extent of maximization**

The conditions described above largely determine a project's capacity to maximize economic and social impacts. As indicated by our example best practises, however, the actual extent of maximization appears depends on several concomitant factors.

##### **4.5.1 Size of project**

The first factor that affects the extent of maximization is the size of the development project itself. In fact, it seems that mega-projects are apt to produce sizable revenues and yield significant profits create a context that is favourable to discussion or even negotiation concerning economic and social issues of concern to local communities. The development of uranium deposits in Northern Saskatchewan is an example of a large-scale project that is likely to be lucrative and therefore give rise to a wide range of maximization measures.

##### **4.5.2 Project proponent's intention to act**

A second factor that can influence the extent of maximization is the project proponent's intention to act, which is rarely spontaneous and disinterested. Based on the examples examined, it appears a number of proponents have understood the considerable advantage of involving communities in the entire project, from the planning stage right through to project follow-up. Examples are Manitoba Hydro in the case of the

Wuskwatim and Keeyask hydroelectric projects, and Alberta-Pacific, a major forestry company, which signed the biggest forestry management agreement ever in Alberta. Such initiatives, which meet the expectations of local residents, Aboriginal communities and concerned citizens, make it possible to move to the next steps.

Moreover, decisions by major companies such as Rio Tinto, Texaco or Statoil to adopt sustainable development policies or codes of ethics, are indicative of a desire to cast companies in a favourable light, thereby improving their chances of continuing or diversifying their activities, or breaking into new markets. These measures are in keeping with market incentives or even government policy promoting the adoption of voluntary codes of conduct or best practices.

An example of common intention on the part of the different parties is the introduction of a forestry code of practice by the Tasmanian government in cooperation with private forest proprietors with a view to ensuring similar quality standards across Tasmania.

It is, however, possible to compel this kind of intention. Legal obligations such as the obligation to take into account treaties or territorial agreements with Aboriginal peoples, or the obligation to comply with the *Canadian Environmental Assessment Act* (C-15.2) can force a proponent to realize the importance of entering into dialogue with local communities that are likely to be affected by a project.

#### **4.5.3 Capacity of local environment**

A third factor that affects the extent of maximization is the capacity of the local environment. This importance of this factor is revealed in a number of areas. To begin with, local communities must have the capacity to identify issues they deem important on their own, as well as the capacity to express those issues, to be heard, and to sustain the issues over the long term.

Education is a key factor as it is a prerequisite to democratic and effective participation. It is therefore essential that appropriate educational resources be made available to local communities. In addition, local communities must have the capacity to track development projects and identify unforeseen issues. They can more readily identify negative impacts that arise despite mitigative measures. Again, education is a vital key.

At the same time, communities must be able to express their concerns and make observations in such a manner as to be heard by the proponent. The Red Dog mine project is enlightening in this regard. Thanks to a permanent committee made up of Cominco and Inupiat representatives, the Inupait people were able to express concerns regarding discharges from mining operations observed by hunters on the territory's roads.

Finally, local communities must have the capacity to benefit from the opportunities provided by the conduct of a project. Indeed, it is not enough to simply provide for an envelope of contracts reserved for local entrepreneurs or set aside a percentage of jobs



for local residents. Communities must have the resources, businesses and skilled labour to be able to take advantage of opportunities to maximize potential spinoffs. The keys to ensuring adequate preparation of these resources appear to be ad hoc education, specific project training for human resources that will provide the labour and entrepreneurs, as well as the removal of barriers to occupational qualification and business start-up that often flow from standards that are not adapted to the North.

Local capacity would thus improve with time, hence the importance of engaging local communities from the outset of a project, rather than presenting them with a fait accompli and forcing them to become involved in a project's advanced stages.

Several of the Canadian and international practices have education components beyond pure education. For example, the creation of a school of health sciences at the University of Northern British Columbia or the Northern Ontario Medical School. There are also resource development projects, some of which require skilled labour. For example, certain projects related to the oil and gas industry in the Northwest Territories and the development of uranium deposits in Saskatchewan include a sizable training component.

## 4.6 Conclusion

There are many examples of development initiatives and projects that can maximize economic and social spinoffs, especially for local communities, across Canada and around the world. A look at these reveals a definite convergence between the maximization objective and the principles set out in the Rio Declaration, suggesting that efforts to maximize project spinoffs should be modeled from a sustainable development perspective.

The review also revealed that, in this perspective, resources can no longer be mobilized for the sole purpose of profits, and it is important to take into account not only the interests of the project proponents, but also those of the natural environment on the one hand and, on the other, those of the people, companies and associations located in the impacted region. To achieve this balance of interests, government action is almost always necessary, although the model of government action varies considerably depending on the context, the government's political culture, and the nature of the issues involved. Such action takes many forms, from the provision of information to the enforcement of legal obligations. In any event, participation by the local community appears to be central to all successful maximization practices. This participation must be based on known participation rules, accessible information and inclusive conditions and procedures. It must cover the entire span of a project, from its very conception to the ongoing follow-up. Maximization initiatives therefore often have innovative features.

Finally, since maximization is a relative development concept and since practices cannot be assessed with any certainty without strict tracking, project monitoring is a key ingredient. It is the only one that can provide information on the economic performance of a project with any degree of confidence by allowing for measurement of return on investment. It is also the only one that can provide information on the social performance of a project, although there is still much conceptual and methodological work to be done in this regard.

## 5. Recommendations: “Do better, do more”

The review of Canadian and international best practices in terms of maximizing the economic and social impacts of projects highlighted a number of maximization success factors. These were outlined in Section 4.

The convergence between maximization of the economic and social impacts of projects and the application of certain principles of sustainable development set out in the Rio Declaration also seems to be a key factor for maximization. This finding indicates that an important transformation in our ways of doing things is underway in the area of development; this itself is excellent news for proponents of these principles here in Canada and around the world.

The diversity of success factors and of the ways in which they are applied confirms the relevance of developing a maximization “frame of reference” that can apply to major Northern development projects. It is recommended the working group table this “frame of reference”, akin to a best practices guide, at the 2005 Forum in Manitoba. This will be critically important to Northern Development ministers being able to maximize the impacts of the 73 or so billion dollars in investment expected in Canada’s North over the next five years. As indicated earlier, the objective is to help Canada become a world leader in this field.

To be more effective and to influence the practices of public and private project proponents, the “frame of reference” could include a chapter on project monitoring. This would also be a guide to be used on a voluntary basis. This guide would be built around social and economic indicators, and would prove useful in tracking project impacts throughout the implementation and follow-up processes.

Designed during the project planning phase, indicators of social and economic impact would be displayed as trend charts. These indicators would enable project proponents to ensure ongoing follow-up of economic and social impacts, if applicable, and make adjustments in order to maximize these impacts. This instrument could make it easier to integrate projects into the economic and social life of the communities. This approach could also be employed to identify impact mitigation measures in the likelihood that impacts need to be minimized rather than maximized.

In addition, and in recognition of the direction provided by Northern development ministers at the Iqaluit Forum on the changing impacts of Northern investment and development on Canada as a whole, this monitoring system and its implementation in 2005 should make it possible to evaluate in a valid, measurable way, the impacts of all major projects carried out over the short term in Canada’s North. The impacts could also be extended to the Canadian economy.



Consequently, the working group is recommending the following course of action to the Northern development ministers:

1. Develop a “frame of reference” for maximizing the economic and social impacts of projects, and present it at the 2005 Forum in Manitoba.

Growing out of the assessment of national and international best practices and incorporating the key maximization factors identified previously, this frame of reference would be based on the following elements:

- The need for a comprehensive, tripartite partnership approach that fully brings together partners involved in maximizing social and economic impacts, namely governments, businesses and the community;
- The need to combine in an integral, balanced and harmonious manner, the return on private and public investments made by governments and businesses, with the sustainable development of the impacted communities;
- The need for joint project planning with the full, ongoing and long-term involvement of all three partners, so as to define social and economic maximization objectives. These objectives should cover medium- and long-term expectations of each partner, with regard to both return on investment and the sustainable development of projects;
- The recognition of the need, in a sustainable development context, to integrate into the social maximization objectives the communities' welfare. This includes the standard of living, local environment and quality of life of impacted populations;
- Impacted communities have to be involved throughout the project planning, implementation and follow-up process. This makes it essential to have adequate and ongoing information as well as appropriate expertise geared to specific expectations, particularly those relating to sustainable development;
- The need to establish a monitoring system (a maximization measuring instrument) with results indicators enabling partners to track project impacts throughout the life of the project and to make any necessary adjustments with an eye to the objectives and expected results. The indicators would cover return on investment as well as standard of living, local environment and quality of life of the communities, as mentioned earlier;
- The need for targeted intervention by the governments with a view to achieving maximization objectives, both in terms of sustainable development and return on investment.



2. Develop a monitoring system and present it at the 2005 Forum in Manitoba.

- To measure performance in implementing the “frame of reference” for maximizing the economic and social impacts of major Northern projects in the coming years, the working group recommends developing a monitoring system. Such monitoring would help paint a general picture of the maximization results throughout Canada’s North and over the medium and long term.
- In developing the monitoring system, the working group plans to partner with research teams that are working in this field in Canada. We are thinking mainly of the *Social Issues Associated with Arctic Resource Development* Project, led by a research team from Université Laval and the University of Northern British Columbia, whose work is directed by a committee of partners. We are also thinking of the ArcticStat database, developed in Canada and funded through Canadian sources, aided by Canada’s national and territorial statistics agencies as well as those of the member countries of the Arctic Council.
- The development of a monitoring system that can be used for any Northern development project and exported elsewhere in the circumpolar region, as well as the partnership of the Northern Development Ministers Forum with the research community, could enable Canada to make a major contribution to International Polar Year 2007-2008, where human dimensions will be front and centre.

3. Mandate the working group to implement the previous recommendations by accessing the necessary resources within the Forum and fostering partnerships with Canada’s academic community.

- Expanding the current working group by soliciting the expertise of the provinces, territories and academic community will be of assistance in developing the frame of reference and the monitoring system, while taking advantage of ongoing initiatives in this area, avoiding duplication and maximizing the joint efforts of all.

## **6. Acknowledgements**

First and foremost, the working group would like to thank the representatives of the Forum member governments for submitting the maximization examples used in preparing this report. This information was very edifying to us, and was essential in preparing the report.

We would also like to thank Mr. Luc Bussière of the Conference Board of Canada, as well as his team, for the time they spent with us in Ottawa during our meeting in February 2004.

Our thanks also go out to Mr. Jacques Auger of the Observatoire de l'administration publique de l'Énap, who oversaw production of the study dealing with the international examples, and to his research team, in the persons of Ms. Marie-Helen Brisebois, Ms. Dolorès Grosseemy, Ms. Karine Latulippe and Mr. Tarik Sadik.

Our report would not have been possible without this study, and the information it provided was particularly relevant.

**NOTES:**







**Appendix 1**  
**Maximization examples identified in**  
**Canada by the provinces and territories**





## **ALBERTA**

### **Example One: OIL SANDS INDUSTRY DEVELOPMENT**

#### **Challenge:**

Northern Alberta has all of Canada's oil sands development and is one of the world's two largest sources of bitumen. In 2002, the region's production of synthetic crude and bitumen averaged 740,000 barrels per day, with production expected to rise to 1.9 million barrels per day by 2010. Investment in the oil sands is forecasted to reach about \$5 billion a year from 2004 to 2008, creating a demand of \$8.5 billion for construction materials and labour and \$3.3 billion for machinery and equipment each year.

As of June 2003, 28 petroleum companies and developers are engaged in or have proposed 81 oil sands related projects in Northern Alberta. (RIWG Fact Sheet: Canada's Oil Sands, June 2003). The Athabasca deposit, located in northeastern Alberta in the Regional Municipality of Wood Buffalo, is the largest deposit and has the most concentrated oil sands development. Managing the economic, social and environmental impacts of large-scale industrial development is a significant challenge for the region.

#### **Solution/Results:**

1. Regional groups have been established who work together to address the economic, social and environmental issues involved in oil sands development. The following are examples of strong partnerships developed to tackle specific issues:
  - The Athabasca Regional Issues Working Group (RIWG):
  - Alberta Oil Sands Developers Facilitation Committee (AOSDFC)
  - The Athabasca Tribal Council – All Parties Core Agreement Management Committee and Executive Group
  - The Cumulative Environmental Management Association
  - The Wood Buffalo Environmental Association (WBEA)
  - Regional Socio-Economic Forum
2. Regional consultation agreements between governments, developers and Aboriginal groups have been made. A recent example is the Athabasca Tribal Council-All Parties Core Agreement that has been signed by all five member First Nations of the Athabasca Tribal Council and 17 executives representing the region's oil sands, energy, and pulp and paper developers. This agreement is supported through separate, but related memoranda of understanding between the Athabasca Tribal Council and each of the Government of Canada, Government of Alberta, and Regional Municipality of Wood Buffalo. There is also a memorandum of understanding between industry and the Metis communities.

## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

The Athabasca Tribal Council-All Parties Core Agreement sets out three objectives:

- managing the issues related to the impact of industrial development on regional First Nations;
- developing long-term mutually beneficial relations between the parties; and
- maximizing opportunities for all parties to benefit from industrial development.

The Agreement is a forum for all parties to work together to resolve issues and provides base funding of \$230,000 to each First Nation for an Industry Relations Corporation, which will assist each community to consult with Industry and identify issues related to industrial development.

Successes to date of the Agreement:

- Education, Employment and Training: Coordinators for employment, adult and youth career path, capacity building, programs for apprenticeships and mine operators.
- Physical (Community) Infrastructure: project managers, community draft plans, integrated plan/proposal
- Social/Health Infrastructure – community study and needs summary
- Long term benefits negotiations underway

Opportunities from the Agreement: Long term benefits sharing – continuous improvement in value of contracts awarded, funding of ATC Agreement and renewal, development of long term benefits sharing solutions. Education/Training and Employment – increase Aboriginal jobs in the region, apprenticeship development and employment programs

3. Companies have policies and programs in place to maximize local benefits and have a strong commitment to consultation with the public and Aboriginal population.

### **Example Two: ALBERTA-PACIFIC FOREST INDUSTRIES INC.**

#### **Challenge:**

Alberta-Pacific is North America's largest single line kraft pulp mill producing 560,000 tonnes of pulp per year. The mill site is located about 200 kilometres northeast of Edmonton, Alberta. Alberta-Pacific's Forest Management Agreement (FMA) Area is the largest FMA in the province covering much of northeastern Alberta with an area of approximately 58,000 square kilometres. There are approximately 26,000 Aboriginal people living in the FMA and another estimated 16,000 who are affected by the company's operations. The challenge for the company is to respect and respond to the needs and priorities of local residents, Aboriginal communities, and other interested citizens.

**Solution/Results:**

1. The company has integrated Aboriginal Relations initiatives into every aspect of its operations and has many programs and ongoing partnerships that demonstrate its commitment to working with Aboriginal peoples, particularly in the areas of education and environment.
  - Aboriginal Education Partnership Program
  - Future Leaders Program
  - Aboriginal Certified Technician Program
  - Trapping Management Program
2. The company supported two major business initiatives that will provide local employment in Aboriginal communities and will be significant contributors to local economies, Bigstone Forestry Inc. and ABCoR, and helped to develop a sustainable wood harvesting company with the Kikino Metis Settlement.
3. Alberta-Pacific is the only forest company in Alberta to have a public advisory group with the power to actually make decisions about how the company will operate. The Forest Management Task Force is made up of representatives of a number of caucuses with interests in the company's forest management practices. It is one way the company gets input and provides information to local communities.
4. Alberta-Pacific has established offices in Wabasca, Janvier and Ft. McMurray, each with a community liaison, generally an Aboriginal community member who has good knowledge of the issues and priorities for that community. The community liaisons work with community leaders, organizations and businesses to communicate on important issues and activities and identify opportunities for community development.
5. Alberta-Pacific has provided capacity, through secondment and funding, to a number of Aboriginal communities including Janvier and Desmarais.
6. The company is also participating in provincial programs respecting education and environment.



## **BRITISH COLUMBIA**

### **Infrastructure Project to Maximize Social Benefits**

The University of Northern British Columbia (UNBC) has received significant investment in recent years to strengthen its position as a leading educational institution for residents of northern British Columbia and elsewhere across Canada. Education continues to be a top priority in British Columbia and government has adopted the “best practice” of providing meaningful educational opportunities in the north rather than focusing solely on expanding facilities and services in the southern urban institutions.

On March 15, 2002, the British Columbia government announced the creation of a \$12 million health sciences facility at UNBC to act as a satellite institution of the medical school at the University of British Columbia. Through this initiative, British Columbia will increase the supply of doctors and improve northern health care by training medical students in the north.

As part of government’s plan for renewing northern health care, this investment of \$12 million at UNBC is part of a larger \$134 million Life Sciences Initiative that will increase the number of first-year medical school spaces in British Columbia from 128 to 224 by 2005, including 24 new spaces at UNBC.

From 1980 to 2001, there was no increase in medical school spaces in British Columbia, despite a population increase of 50 per cent. Until 2002, British Columbia had the lowest per capita number of medical school spaces in the country. Now, through this investment, doctors can study and complete their residencies in the regions where they are needed. The results will be more doctors overall, doctors more likely to reside and practice in the northern regions, and better care for patients throughout British Columbia.

Also in 2002, government announced \$322,000 in funding for equipment for the new social science research laboratory at UNBC. The lab, which is unique in Canada, provides researchers with the tools to examine social, historical, and political issues in northern and remote communities. The funding came from the British Columbia Knowledge Development Fund, which provides capital funding for research equipment and facilities for public post-secondary institutions, teaching hospitals and affiliated non-profit agencies. The Canada Foundation also provided support for the laboratory for Innovation and private contributors. To date, UNBC has received \$2.8 million from the B.C. Knowledge Development Fund for eight research projects.



### **Infrastructure Project to Maximize Economic Benefits**

British Columbia's current transportation plan, developed by the Ministry of Transportation and entitled "Opening Up BC", confirms that northern British Columbia continues to benefit from the oil and gas industry, which sustains more than 30,000 well-paid jobs. Reliable roads are critical to ensuring continued expansion of one of British Columbia's most important industries. Road infrastructure that meets the needs of industry will support government's goal of attracting \$24 billion in new oil and gas investment and the creation of 8,000 new jobs in the industry within six years.

The Government of British Columbia clearly recognizes the importance of transportation infrastructure as a cornerstone of economic development in the northern regions of the province. As an example of a "best practice", the Government of British Columbia has implemented an "investment matching" strategy to support northern transportation infrastructure development.

The Oil & Gas Development Strategy introduced in May 2003, provided royalty credits of up to \$10 million a year toward construction, upgrading and maintenance of road infrastructure, critical to support resource exploration and development. Industry is required to cost-share equally on proposed projects. This initial allocation prompted a significant industry response to a call for proposals. Based on this response, the new initiatives substantially expand the program providing an additional \$20 million per year, for a total of \$30 million per year, in royalty credits for infrastructure development to support oil and gas development. This level of investment will be matched by industry.

## **MANITOBA**

### **The Wuskwatim & Keeyask Training Consortium** ***Pre-Project Training Initiative***

A Partnership of  
Manitoba Advanced Education and Training  
Manitoba Hydro  
Human Resources and Skills Development Canada  
Indian and Northern Affairs Canada  
Western Economic Diversification  
Nisichawayasihk Cree Nation  
Fox Lake Cree Nation  
Tataskweyak Cree Nation  
York Factory Cree Nation  
War Lake Cree Nation  
Manitoba Keewatinook Ininew Okimowin Inc (MKO)  
Manitoba Métis Federation (MMF)

## **OVERVIEW**

The Pre-Project Training Initiative is a comprehensive and multi-year strategy to prepare northern Aboriginal residents for employment on proposed hydroelectric projects in northern Manitoba over the coming decade.

The initiative has been identified as a key platform from which to drive government's Northern Develop Strategy to increase individual, community and economic capacity in northern communities.

To take advantage of the employment opportunities hydroelectric projects represent, a number of First Nations in partnership with Manitoba Hydro, the Province of Manitoba and the Government of Canada are working to provide the members of their communities with the necessary skills through a variety of job related training opportunities.

The proposed hydro projects include Wuskwatim Project (\$1.0B) for which construction could start as early as this fall (2004). Construction of the Keeyask (Gull) project (\$3.0B) is projected to start in 05/06. The potential for a Conawapa generating station is under active consideration at this time.

An investment of up to \$60 million is being made in new community-based and regional training initiatives over the next five years to provide targeted training opportunities for 1100+ First Nation and other northern Aboriginal residents. Job placements on hydro

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projects in the range of 800 are anticipated. Pre-project training will identify and train residents in designated and non-designated trades, ensuring that training meets acceptable standards.

In addition to creating local employment, it is expected that business opportunities for First Nations and other northern Aboriginal people will be maximized and that short term opportunities will be integrated with longer term initiatives.

The combination of training, jobs, business opportunities and local participation is a powerful recipe for both social and economic development.

The development of the Wuskwatim and Keeyask generating projects would mean \$4.0B in construction, a \$2.0B contribution to the national GDP, up to 2500 direct and indirect jobs at the peak of the two projects, preferential employment provisions for northern Aboriginal residents and long-term capacity building in community/economic development and education/training delivery.

## **PARTNERSHIPS**

The Pre-Project Training Initiative is a partnership of five First Nations which are proposed equity partners in the hydro developments – Nisichawayasihk Cree Nation, Tataskweyak Cree Nation, War Lake First Nation, York Factory First Nation and Fox Lake Cree Nation, the Aboriginal organizations representing other northern Aboriginal interests - Manitoba Keewatinook Ininew Okimowin (MKO) and the Manitoba Métis Federation (MMF) - and funding bodies – Canada, Manitoba, and Manitoba Hydro.

On May 18, 2004 Canada announced support of up to \$22 million for the Pre-Project Training Initiative proposal under the Aboriginal Skills and Employment Program (ASEP). The contribution agreement is currently being negotiated.

## **THE TRAINING CONSORTIUM**

A Legal Entity comprised of a Funders' Committee, a Coordinating Committee, and the seven Aboriginal stakeholder organizations is being established. Funding for the initiative flows to the Legal Entity for management and disbursement. Quarterly financial and activity reports roll up to the Legal Entity.

The Legal Entity is necessary to facilitate funding under ASEP. The consortium will operate on a consensus basis to the greatest extent possible however in the absence of



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consensus decisions will require approval of a majority of the seven Aboriginal partners and the funding partners as represented by Manitoba and Manitoba Hydro.

Aboriginal parties to the Initiative have the lead responsibility for design, development and delivery of training programs for their members and will integrate these plans with Hydro workforce estimates and job cycles.

The Coordinating Committee of Aboriginal parties and funders will meet regularly to coordinate and integrate training activities and outcomes, monitor initiative effectiveness, share best practices, identify and address barriers and discuss other items of common concern

Funders work directly with the Aboriginal parties to review and approve Annual Training Plans. Once approved by the funders, the Legal Entity enters into a contribution agreement with each Aboriginal party which then initiates training and delivery.

## FOSTERING SUCCESS & BUILDING CAPACITY

### LESSONS LEARNED

#### **Start Early**

Training initiatives must start well in advance of the projects that will generate the jobs.

#### **Active Aboriginal Involvement**

It is imperative to involve Aboriginal stakeholders from the beginning in the design, development and delivery of training plans and the development of governance models.

#### **Comprehensive Approach**

Provide a broad spectrum of personal and skill development opportunities. This includes assessment, life skills, upgrading, academic, technical and on the job training. Retention strategies which are community-based such as child care, support services, mentorship and elders are critical to success.

#### **Linking Training to Employment and Business Opportunities**

Develop industry work/job placement partners and leverage capital projects for training opportunities. Job registration and referral services are important to tie training to employment. Links can be achieved through preferential employment provisions for northern Aboriginal residents. In addition, there will be numerous direct contract business opportunities for the proposed equity partners in such areas as road construction; catering; security; and cross-cultural training and services.



## CORNERSTONES OF SUCCESS

### Cornerstone #1 Aboriginal Led

- ☐ Responsibility for delivery of training is best in the hands of the community and its members
- ☐ The community is best positioned to understand needs/challenges; what works best; best opportunity to mobilize resources and ensure participants are successful
- ☐ Greater ownership and commitment to results

### Cornerstone #2 Retention Supports

- ☐ Community has to support training participants to ensure their success
- ☐ Multi-disciplinary approach will support skills/knowledge transfer and provide participant support
- ☐ Includes basic family/community encouragement; counseling; day care; elder support; community job placements

### Cornerstone #3 Community-Based

- ☐ A community-based approach will offer the greatest opportunities for participant retention and success
- ☐ Local training means
  - o Proximity to home and family
  - o No need to leave home community
  - o Decreased sense of isolation
  - o Increased availability of cultural and community supports

### Cornerstone #4 On the Job Training

- ☐ On the job partnerships are a must to gain the work experience necessary for certification and employment
- ☐ Critical to provide retention supports to participants on the job
- ☐ Use local projects to maximize work/training opportunities

## WHAT HAS WORKED

**Aboriginal Consultation and Involvement** led to ownership, engagement and commitment to results and was instrumental in negotiating a framework agreement and principles for funding, accountability and roles.

**Sufficient Funding** is in place to provide for a multi-year and comprehensive approach that provides a full range of programming including significant resources for retention.

## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

**A Community-based Focus** produces a greater likelihood of participant success/completion. A distributed effort means greater community involvement, a better product and better value through opportunities to build community capacity over time. An Aboriginal led and community-based approach stimulates increased efforts and mobilizes more resources in and across participating Aboriginal communities.

**Aboriginal Led Partnerships** amongst Aboriginal parties and communities, with public and private training providers and industry for work and on the job training resulted from Aboriginal groups taking the lead in seeking out and developing key partnerships. Aboriginal groups are becoming more active players in the education and industry spheres. These established and developing contacts and networks will pay dividends in the present and over time.

### CHALLENGES

The Pre-Project Training Initiative is based on lessons learned from the past and current best practices and models applied in other jurisdictions. As challenges become apparent they inform future best practices.

There has been a perception of unfairness by some related to the distribution of funding under the Initiative. The interests of various parties are not naturally aligned at all times. The greater the misalignment, the more resources are expended in managing and negotiating the resulting issues. To the degree that various interests are considered and can be factored in, the alignment of interests will be less of an issue.

The initiative and its objectives are very challenging in respect to the realities of northern Aboriginal education and labour market participation and completion rates and the many societal factors which significantly disadvantage many Aboriginal individuals in training and employment pursuits. The overall approach of the initiative recognizes these challenges and attempts to put into place key strategies to maximize opportunities for results (ex. Community-based focus; retention supports; broad stakeholder engagement and coordination).

The involvement of First Nation and other Aboriginal communities is imperative, but communities are variously challenged in a number of areas, including available training space, equipment, accommodation, access to services and a shortage of human resource skills, knowledge and experience. It is intended that through participation in the Pre-Project Training Initiative a legacy of enhanced training and education delivery skills, knowledge and experience will result. Some of the current shortfalls may lead to less than optimum outcomes in the short term. This is a necessary investment in learning and development leading to increased future capacity. Success will be measured not only in terms of project related and sustainable employment, but also in terms of the development of community resources and capacity.

## **JOB VACANCY MANAGEMENT TOOL**

Ancillary to the Pre-Project Training Initiative but significant in its own right is a job vacancy management tool being developed to serve as the link between training and employment opportunities. This tool, developed as part of the initiative will match qualified candidates to jobs and, where appropriate, factor in negotiated preferences for northern Aboriginals.

It is expected that this tool will become a powerful database for serving the needs of the northern labour pool and northern industry well beyond its initial application to the hydro projects.

## **ACHIEVEMENTS TO DATE**

Organizationally, progress to date can be measured in terms of the funding and partnership agreements negotiated, the establishment of the Coordinating Committee and related roles and processes and the current activities to develop the Consortium governance and decision making model.

Manitoba Hydro and Manitoba have invested \$8.0 million to date in community-based development and training activities. Results include: 1300 assessments; 400+ training participants and activities ranging from life skills and upgrading to HEO/Truck drivers, apprenticeship trades training and on the job work experience.

An annual training plan process and cycle is in place to receive, review and approve training plans developed by the Aboriginal parties. This process is supported by a Training Plan Review Committee, training plan templates and quarterly financial and activity reporting processes.

Industry and education partnerships are evolving. An excellent example of this relates to the building of an access road to one of the partner communities. The tender required a minimum number of hours of actual on job construction experience for heavy equipment operator trainees. Expectations were exceeded both from the perspective of the invaluable and necessary experience for the trainees, and the fact that the project came in within schedule and significantly under initial cost estimates.



## **SPECIFIC TRAINING TARGETS**

### **Technical/Trades Training**

- Designated Trades (175 positions)
- Carpenters, electricians, iron workers, plumbers, pipe fitters and millwrights
- Non-designated trades (375 positions)
- Heavy equipment operator, teamster
- Construction Supports (175 positions)
- Labourer, catering, security
- Business/Professional/Technical (75 positions)

## **SOCIAL AND ECONOMIC BENEFITS**

Education and employment are transformational – even more so in combination. The economic benefits to be derived from the hydroelectric projects are and will be the result of direct investment in training, jobs for northern Aboriginal residents and business opportunities related to the development.

The social benefits resulting from education and employment are profound and education and employment are widely recognized as important social determinants of health. There are obvious potential benefits to both individuals and the communities involved in the pre-project training. The community-based approach to the delivery of training not only increases the chances for success of the trainees, but also leaves a legacy of increased local capacity for the administration and delivery of programs.

The collaborative approach and equity participation by First Nations in hydro development is a marked departure from past practice based on lessons learned. The Pre-Project Training Initiative is laying the necessary foundation for the realization of the expected social and economic benefits for the trainees, their communities and northern Manitoba.

For more information on this initiative please contact:

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## NEWFOUNDLAND AND LABRADOR

### EXAMPLE ONE:

#### THE VOISEY'S BAY MINE / MILL PROJECT, LABRADOR

##### **Project Overview of Maximizing Economic Benefits - Impact and Benefits Agreements and the Adjacency Principle**

###### *The Project*

The Voisey's Bay nickel-copper-cobalt deposit was discovered in Northern Labrador in September 1993. In 1996, Inco Ltd. acquired the rights to the Voisey's Bay property. Voisey's Bay Nickel Company (VBNC), a wholly owned subsidiary of Inco Ltd., is the company responsible for developing the Voisey's Bay project.

The Voisey's Bay project includes the construction and operation of an integrated mine and concentrator in Labrador, as well as a processing facility at Argentia, Newfoundland that will receive and process the concentrate to a finished nickel product. The project will represent an overall investment in the Province of about \$3 billion over its estimated 30-year life<sup>1</sup>, including \$1.5 billion in Labrador for the Mine/Mill<sup>2</sup>. This overview focusses upon the Labrador component of the Voisey's Bay project.

In June 2002 the Government of Newfoundland and Labrador and Inco signed a *Statement of Principles* to develop the Voisey's Bay project. Construction of the \$829 million Mine/Mill at Voisey's Bay began in July 2002 and will be completed in 2006. During construction approximately 1,550 person-years of employment will be created, and VBNC expects that during its operation the Mine/Mill will employ 400 people. Subject to the completion of a successful underground exploration program, underground mining and the expansion of the concentrator would begin around 2018, at a cost of approximately \$825 million. Approximately 400 additional people would be employed at the underground mine and concentrator, increasing the total workforce to 800 people<sup>1</sup>.

###### *Aboriginal Land Claims*

The Voisey's Bay site is located within the land claim areas of both the Labrador Inuit Association (LIA) and the Innu Nation. Both claims have been accepted for negotiation by the Governments of Canada and Newfoundland and Labrador, but final agreements are not yet in force.

Given the significant nickel-copper-cobalt discovery at Voisey's Bay, the Province maintained during land claims negotiations with both groups that Voisey's Bay lands could not be selected as part of eventual land claim settlements. Instead, the Innu Nation and LIA each agreed to negotiate Voisey's Bay Chapters for their respective land claim agreements. To allow the project to proceed while the land claims are under

## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

negotiation, interim arrangements implementing the provisions of these Chapters were concluded with each group in 2002. A key aspect of these agreements was a requirement for Inco/VBNC to sign individual Impact and Benefits Agreements (IBAs) with the LIA and the Innu Nation.

The Labrador Inuit Land Claims Final Agreement was initialed by the chief negotiators for the LIA and the provincial and federal governments in August 2003, and was ratified by the Labrador Inuit on May 26, 2004. Negotiations are ongoing with the Innu Nation towards an Agreement-in-Principle (the interim step before a Final Agreement).

### *Economic Benefits of Voisey's Bay*

Maximizing local, regional and provincial economic benefits from the Voisey's Bay project has been and remains a key priority.

IBAs for the Voisey's Bay Mine/Mill were signed between VBNC and each Aboriginal claimant group in 2002. IBAs typically include measures to optimize economic benefits for Aboriginal individuals and firms and minimize any potential negative effects, including preferential employment and contracting, training, revenue sharing and environmental protection measures. They are formal, written agreements between the Proponent and the Aboriginal claimant groups, however, and their specific content is therefore confidential.

During the project's environmental assessment (EA), Inco/VBNC also committed to an adjacency policy for hiring and the purchase of goods and services for the Mine/Mill. In August 1999 the Government of Newfoundland and Labrador issued the *Voisey's Bay Mine and Mill Undertaking Order*, that released the project from further EA and permitted it to proceed subject to specific terms and conditions, including that VBNC abide by all commitments made during the EA process.

In the *Voisey's Bay Statement of Principles* (June 2002), Inco/VBNC again committed to applying its adjacency policy to hiring and contracting. Hiring by VBNC and its contractors is done as follows<sup>2</sup>:

- 1<sup>st</sup> preference is given to qualified members of the LIA and Innu Nation;
- 2<sup>nd</sup> preference goes to qualified Labrador residents who are union members;
- 3<sup>rd</sup> preference goes to qualified Labrador residents who are not union members; and
- 4<sup>th</sup> preference is given to qualified union members from the Island portion of the province.

The adjacency principle also applies to project-related contracting. VBNC gives full and fair opportunity and first consideration to qualified Newfoundland and Labrador companies that can provide required goods and services on a competitive basis<sup>2,3</sup>. The

## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

level of Innu and Inuit content and benefits are an important consideration in the evaluation of potential suppliers. Beyond the IBA commitments, other businesses in Labrador receive priority for procurement opportunities for the Mine/Mill, followed by other provincial suppliers<sup>1</sup>.

- The *Voisey's Bay Development Agreement* was signed between the Province and Inco/VBNC on October 7, 2002. The associated *Industrial and Employment Benefits Agreement* (IEBA) also includes specific provisions and measures to ensure that local residents and companies benefit to the maximum extent possible. The IEBA also requires VBNC to report regularly to the Province on goods and services purchased and on project employment (by gender, work location, employee residence and numbers of Aboriginal employees). Provincial government officials based in Labrador also serve as Employment Monitors, to monitor hiring practices at Voisey's Bay and ensure compliance with the adjacency principle.
- The Voisey's Bay Employers Association and the Resource Development Trades Council of Newfoundland and Labrador signed a collective agreement for the Voisey's Bay construction phase in December 2002. In April 2003 the Department of Labour issued a *Special Project Order* (SPO), which validated this collective agreement. The SPO acknowledges the adjacency principle and other employment commitments made in the Undertaking Order and IBAs.
- The provincial and federal governments, VBNC, Aboriginal groups and other organizations have taken additional steps to help local residents and firms identify, prepare for and obtain project-related employment and business opportunities. Some examples include:
  - The Joint Voisey's Bay Employment and Training Authority (JETA) has been established to support Aboriginal human resource development activities related to the project. JETA is a partnership between VBNC, the Innu Nation, LIA and the Labrador Métis Nation (LMN), with financial support from the federal government. JETA's primary objective is to facilitate the employment of members of the LIA, Innu Nation and LMN with VBNC and its contractors during Mine/Mill construction and operation. Project-related training programs have been provided through the College of the North Atlantic in Happy Valley - Goose Bay, Labrador, and the organization is overseeing the development of a comprehensive Aboriginal human resources plan for the Mine/Mill<sup>2</sup>.
  - Public and private educational institutions in the province have developed and implemented programs to train individuals for project-related employment, often in partnership with industry and government. The College of the North Atlantic, for example, has established a Mining



## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

Technology Centre at its Labrador West campus to meet current and emerging training needs in the mining industry. In addition, Inco is developing an Innovation Centre at Memorial University in St. John's, NL, which will focus on education and research in mineral exploration, mining and metallurgical processing techniques. The company has contributed \$10 million to establish the Centre and \$1 million annually for ten years for its operation<sup>1</sup>.

- Aboriginal organizations in Labrador are also actively assisting their members in identifying and obtaining project-related employment and business opportunities, both under their IBAs, as well as through other initiatives. An LIA Training and Employment Coordinator, for example, works with LIA members and VBNC contractors to ensure qualified Inuit obtain and retain jobs at Voisey's Bay. The LIA also maintains a directory of firms registered as Inuit businesses. Initiatives by the Innu Nation include, for example, establishing an Innu Business Development Centre in Labrador in 2002 to provide business support services to its members, as well as the creation of a loan fund for Innu who are interested in starting their own business.
- Other specific initiatives undertaken by VBNC include, for example: providing career counselling and on-site training programs; conducting information sessions for potential suppliers; establishing on-line databases for the submission of resumes and contractor registration; and establishing an office in Happy Valley - Goose Bay to provide project information, with Inuit and Innu Employment Coordinators on staff.

In 2003, employment activity associated with the construction of the Mine/Mill in Labrador peaked in November at 1,086 persons. Of these, 514 (47%) were residents of Labrador, and 459 (42%) were residents of the Island portion of the province. Aboriginal persons represented approximately 39% of the total workforce involved in the construction of the Voisey's Bay Mine/Mill that month<sup>4</sup>.

In April 2004, VBNC announced that to date it had awarded \$460 million in contracts for the Voisey's Bay project, of which 90% had gone to Newfoundland and Labrador companies. Of these, contracts with a combined value of \$290 million had been awarded to Aboriginal companies to provide construction and support services at Voisey's Bay (representing over 60% of contract expenditures)<sup>5</sup>.

Aboriginal and other Labrador and Newfoundland firms are therefore key suppliers of goods and services for the project. Some of the Innu and Inuit companies and joint ventures involved in Voisey's Bay work in 2003 include, for example<sup>1</sup>:



- *IKC Borealis*, a joint venture between Innu Development Limited Partnership, Torngait Services Inc. (a majority Inuit-owned company) and several other construction firms from Labrador and elsewhere, was awarded a three-year, \$140 million civil construction contract;
- *Torngait Services Inc.* also provides construction camp, communications and general site services;
- *Innu Mikun Airlines*, a joint venture between Innu Development Limited Partnership and Provincial Airlines Ltd., provides fixed-wing air transportation to and from the site; and
- *Labrador Catering Limited Partnership*, a joint venture between Innu Development Limited Partnership and East Coast Catering Limited, provides catering and housekeeping services.

## EXAMPLE TWO:

### **The Torngat Recreation Commission Newfoundland and Labrador Project Maximizing Social Benefits**

The Torngat Recreation Commission (TRC) was officially incorporated on January 14, 2003, and is comprised of a board of Recreation Directors representing the six North Coast communities. The mandate of the TRC is “*to develop a delivery mechanism to build Leadership Capacity in the six North Coast communities, through Community Partnerships, Training, Community Activities and Sport Programming*”.

The TRC administers two programs; the Community Capacity Building/Leadership Program and the Intra-Labrador Travel Subsidy Program. The emphasis of the Community Capacity Building/Leadership Program is on building capacity by offering various leadership programs. This leadership can be in the form of volunteer recruitment, cultural workshops, to coaching/referee clinics. The Intra-Labrador Travel Subsidy program is designed to allow sport and cultural organizations, as well as individuals from the North Coast, to access funds to travel to other towns within Labrador.

Since incorporation, the TRC has assisted over 350 people in a variety of activities and programs and have approved over 75 proposals totaling over \$69,000. The TRC has held a total of nine workshops and clinics, attended by over 80 participants. With the assistance of the TRC, North Coast representatives have the following certifications:

- 15 certified standard first aiders;
- Regional playground inspector;
- 9 provincially certified volleyball referees;
- 10 individuals with softball coaching certificates;
- A certified kayak instructor; and
- 15 individuals with soccer coaching certificates

Staff from both the Department of Labrador and Aboriginal Affairs and the Strategic Social Plan, provide a support role to the TRC.

The TRC in conjunction with the College of the North Atlantic and Memorial University of Newfoundland, are in the process of exploring a Northern Recreation Program that will enable the recreation directors to complete a college/university certificate that will meet their training needs. In this program, recreation directors can do blocks of training over a period of time, either in their own communities or selected locations. Such a course would take place over a couple of years and at the end, individuals would be certified Recreation Administrators/Directors, with credits that are transferable to a university program.

## References

<sup>1</sup> Voisey's Bay Nickel Company Limited. *<http://www.vbnc.com>*

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<sup>3</sup> Kelly, Bob. Voisey's Bay Nickel Company. *Voisey's Bay Project - Supplier Participation Opportunities*. Presentation to the Voisey's Bay and Beyond Conference. June 25, 2003. Happy Valley-Goose Bay, Labrador. *[http://www.voiseysbayandbeyond.com/VBB\\_BKelly.pdf](http://www.voiseysbayandbeyond.com/VBB_BKelly.pdf)*

<sup>4</sup> Voisey's Bay Nickel Company Limited. *Employment Summary as at November 30, 2003*. Released December 21, 2003.

<sup>5</sup> Voisey's Bay Nickel Company Limited. *News Release - VBNC and Innu Mikun Land First Dash 8 at Voisey's Bay*. Released April 12, 2004

## **NORTHWEST TERRITORIES**

### **THE USE OF GAS RESOURCES FOR COMMUNITY NEEDS – THE INUVIK GAS PROJECT IN THE NWT**

#### **CHALLENGE**

For a modern economy, a reliable supply of electricity is essential. NWT residents enjoy electricity services that are equivalent to the levels of service provided in southern Canada. Unfortunately, the delivery of high-quality electric service to NWT communities does not come cheaply. Electricity rates in most NWT communities rank among the highest in Canada. With the exception of communities on hydro, such as Fort Smith, Fort Providence, Yellowknife and Hay River, electrical costs can be 300 to 500 percent higher than southern towns and cities. Based on average household consumption of 675 kWh per month, for example, the monthly costs would be \$71 in McLean, Saskatchewan, compared to \$270 in Fort Liard, NWT.

The NWT is in a contradictory position regarding energy. Currently poised to become one of the largest exporters of natural gas in Canada, the cost of fuel in many of our communities remains prohibitively expensive and requires government subsidies. An exciting prospect for NWT communities is the use of local gas for heating and electrical generation. This reduces imports, adds value to the local economy, creates opportunities for employment and could significantly reduce costs.

#### **BACKGROUND**

Exploration of the Ikhil Gas reservoir located in the Northwest Territories Beaufort- Delta Region began in the mid 80's by Gulf Canada. While the well did produce gas, there was no access to commercial markets without a pipeline. The well was later sold to Shell Canada.

#### **SOLUTIONS**

In 1996 the Inuvik Gas Project acquired the deposit. The Inuvik Gas Project is a joint venture shared equally with Ikhil Resources, AltaGas Utilities Inc. and Enbridge Consumer's Gas to bring gas to customers in Inuvik from nearby wells. In-town distribution is by Inuvik Gas Ltd. owned by the same partners. Ikhil Resources is wholly owned by the Inuvialuit Petroleum Corporation.

After some initial testing, the Inuvik Gas Project was given the "go-ahead" in 1998. The project had two primary markets:

- To supply businesses and residents in Inuvik with piped natural gas.
- To supply fuel for electrical generation.

The project consists of a wellhead to burner-tip operation used in the extraction process. Gas is then transported to Inuvik via a 50 kilometer pipeline to be processed prior to being distributed to customers by Inuvik Gas Ltd.



## RESULTS

It was estimated that the project will supply the community of Inuvik with natural gas for the next 20 years with a cost savings of 25%.

This project quite unique as it encompassed three phases of production: extraction, processing and distribution. Overall the project created many positive benefits:

- Reduction in energy and fuel costs for residents, industry and government;
- Reduced imports and increased value added;
- Increased training and employment within the area;

Source:

Canadian Association of Petroleum Producers (Sep 16/04)

## EXAMPLE TWO:

### TRAINING FOR OIL AND GAS EMPLOYMENT IN THE NWT

#### BACKGROUND

With one billion dollars in oil and gas investment expected between 2000 and 2005, employment opportunities for northerners were a priority. Politicians, aboriginal leadership and people at the community level all talk about the need for education and training, so that Northerners can capitalize on the employment opportunities.

In March of 2001, the Government of the NWT, DIAND and Aurora College became part of a pan territorial committee, set up to determine how best to prepare residents for oil and gas employment. It was decided to focus on floor hands for the drilling rigs. Rob Hunt of Akita-Equitak Drilling, a joint venture company with the Inuvialuit, was a major proponent for training northerners on rigs operating in the north.

The initial committee expanded to include community representation from the Inuvialuit, Gwich'in, Sahtu, and Deh Cho, from Aurora College, the GNWT and DIAND. Industry representatives included CAPP, PITS, Akita Drilling, and IOL.

#### SOLUTION/RESULTS

The Committee decided to focus initial efforts in Inuvik where a 400-meter "cased hole" would be constructed; the "well" itself becoming an incubator for future training. It was agreed that Aurora College would be the lead proponent and "operator" for the drill site.

A location for the rig was identified with the help of the Town of Inuvik; the regulatory requirements of the Gwich'in Land & Water Board, DIAND & NEB were met and approvals received. A huge fund-raising effort was launched with significant



government and industry participation. Contributions included both cash and “in-kind” donations.

A 12-day Floorhand Training program was developed in cooperation with PITS. It included certification in First Aid, H2S Alive as well as Lifeskills, WHMIS, 16 hours of classroom theory and 64 hours of practical training on the rig. Passing a drug-test was a prerequisite for the program

A truck-training course was delivered in July 2001 as part of the site preparation. Students got the experience of “off-loading” the rig from the barge on the Mackenzie River, and setting the rig up on the drill site.

The Floorhand program on AKITA Rig 15 began on July 30<sup>th</sup> and ran three 12-day programs; 12-hour shifts for 24 hours per day. Following this initial program and the Akita 15 moving off-site, the “incubator” potential became a reality. POLAR-BONUS ENERGY SERVICES arranged to have a service rig, owned by Bonus Well Servicing of Alberta, moved onto the well for one 9-day “Service Rig” training program.

Immediately following this, in early September, the camp and rig were moved onto barges, destined for their intended work in the Beaufort Delta.

More than 135 students applied and 84 were accepted (maximum possible) by a screening committee. Seventy-nine (79) students physically registered and sixty-three (63) successfully completed, including one young woman from Fort Good Hope. The overall success rate was 80%. By the time of the third student intake, 100% passed the drug and alcohol test.

In late January and early February of 2002, attempts were made to contact graduates in order to snapshot and track employment. Information on 89% of the graduates (56) was obtained either directly from them or from their employer. Of these, 82% (46) were working and of these 28 had been working on the rigs this winter season, 4 were working in the oilfield, 14 were working in other areas. Of the 10 not working, 5 were not yet able to find work but were continuing to look, 2 were in school, 1 could not afford the work gear, 1 was incarcerated and 1 was temporarily laid off a construction job. Those still looking were still hoping to get oilpatch work this season as some exploration companies plan to drill and/ or conduct seismic work into spring and summer. Some employers also mentioned that they were unable to contact some of the graduates as phone numbers had changed. Another factor that impacted jobs was the fact that explorers/ producers cut back on drilling programs throughout the NWT by more than 50 % from that originally planned.

## **FUTURE PROSPECTS**

There were numerous benefits to having an established training site in Inuvik:

- The drilling lease and 400-meter “cased hole” can now be operated by Aurora College to provide a future training ground for further and more advanced training in the NWT

## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

- Training in the north provides the opportunity to leverage equipment, human resources, and other in-kind support from various sectors.
- Economic by-products of the project benefited the economy.
- An incubator for future training has now been created. Some examples include more drilling/ service rig training, camp attendant, cooking programs, heavy equipment and other driver training. Also, a variety of PITS and other specialty courses could now be conducted on demand.

## **NUNAVUT**

### **Best Practice – Inuit Impact & Benefit Agreements for Major Mining Developments**

#### **The Jericho Diamond Project**

Nunavut's land mass, almost a third of Canada, is largely unexplored giving it enormous potential in mineral exploration. Among the successful explorers is Tahera Diamond Corporation. Tahera has actively explored for diamonds in Nunavut for the past seven years and discovered a commercial grade diamond kimberlite in the West Kitikmeot region of Nunavut Territory (NT). Called "the Jericho Diamond Project," Tahera plans to construct and operate a diamond mine and processing plant that, with current resources will have a minimum 8-year life and employ a total of approximately 105 to 175 people (including employees and contractors) with approximately half that number on site at any rotation.

In accordance with best practices, Tahera signed an Inuit Impact and Benefit Agreement (IIBA) with Kitikmeot Inuit Association (KIA), which is the regional Inuit association of Nunavut Tunngavik Incorporation (NTI). NTI was formed under the Nunavut Land Claim Agreement (NLCA), which gave the Inuit beneficiaries, who are 85 percent of Nunavut's population, a stake in the mineral development of the territory.

#### Inuit Impacts & Benefits Agreements

Inuit Impact & Benefit Agreements (IIBAs) are important tools for ensuring social and economic benefits of a major development flow to Inuit. IIBAs have been utilized across the north for major developments including national parks. In the context of mining projects, IIBAs are important means for local and Aboriginal people to acquire employment or for getting contracts when they might otherwise be left out of the running. The IIBA states that its purpose is the following:

- a) To set out the terms and conditions under which KIA will support, and the provisions for Inuit involvement in the Jericho Project;
- b) To ensure to the greatest degree possible that training, employment and business opportunities arising from the operation and development of the Jericho Project shall be made available by Tahera to Inuit;
- c) To ensure that the Jericho Project contributes to community development and well-being in the Kitikmeot region;
- d) To contribute to the maintenance of Inuit heritage, land based activities and harvesting;

## Initiatives Aimed at Maximizing the Economic and Social Impacts of Major Northern Projects

- e) To establish an effective ongoing working relationship between the Parties on the matters covered by this Agreement in a spirit of mutual respect for the goals and aspirations of each other;
- f) To provide a mechanism through which effective communication and cooperation can take place between the Parties; and
- g) To achieve any other goals consistent with section 26.3.3 of the NLCA.

Source: [www.tahera.com](http://www.tahera.com)

### Supporting Local Businesses in a Global Economy

Tahera Diamond Corporation states that it recognizes the need to support local businesses in the development and operation of a mine. Accordingly, it has utilized Nuna Logistics for completing the mining component of the Jericho Feasibility Study. Nuna Logistics is a northern success story in the mining industry. The company has extensive experience as a mine contractor in the Northwest Territories and Nunavut. For the Jericho Project, Tahera considers Nuna Logistics to be the preferred mining contractor.



## ONTARIO

### EXAMPLE ONE:

#### **The Northern Ontario Medical School: Maximizing Social Benefits**

Officially the Ontario Government announced the intention to create the Northern Ontario Medical School (NOMS) on May 17, 2001. NOMS achieved provisional accreditation status in June 2004 for the entire MD program, the school as a whole and the Year I by the Liaison Committee of Medical Education (LCME) and the Committee on Accreditation of Canadian Medical School (CACMS). The development of NOMS reflects a significant investment by Government, northern communities, and the medical education community.

Ontario, like many other jurisdictions is experiencing challenges with ensuring all of its residents have equitable access to health services and in particular to physician services. Northern Ontario has experience physician supply challenges for many years. The establishment of the Northern Ontario Medical School will have both direct benefits on access to health services and indirect benefits on Northern Ontario communities.

#### **Direct Benefits**

- NOMS is expected to have an operating budget of approximately \$16 million which will come from government grants and tuition.
- The direct economic impact of the increased faculty and administration positions will be felt in Thunder Bay, Sudbury and the distributed learning sites.
- Lakehead University and Laurentian University have also undertaken capital projects worth approximately \$32 million to provide adequate physical accommodations.
- While many of the students are expected to be from Northern and rural areas Northern Ontario communities will eventually see the benefits of having an additional 224 undergraduate and 205 post graduate medical students living and learning in Northern Ontario.
- The care provided at NOMS clinical learning sites and teaching hospitals is expected to be leading edge and will result in an improved levels of appropriate care and treatment for Northern residents.

#### **Indirect Benefits**

- The economic benefits to the local community from additional faculty and students will have a significant multiplier effect.
- Faculty members will participate in research activities, some of which could lead to commercialization opportunities and the expansion of research and product development in the medical and biotechnology sector.
- The establishment of NOMS is expected to enhance and in some cases support the creation of allied health programs. To date Laurentian has recently added a Ph.D. program in biomolecular sciences, a research chair in rural health. Lakehead and

Laurentian Universities have jointly established a Masters Public Health Program that is in its second year and Laurentian University has approved a PhD program in rural health and is awaiting approval from the Ontario Council on Graduate Studies.

- NOMS is expecting to graduate physicians who are prepared to take up practice in Northern and rural Ontario. When Northern communities have access to adequate physician services they expect to be able to be in a better position to support a stronger economy.

2.

- There is expected to be some capital expansions at hospitals to accommodate students and positions to administer students/program.

NOMS will be maximizing the use of technology to help bridge the geographic challenges of providing this program in Northern Ontario. The reliance on technology is expected to result in the development of leading edge expertise in distance education. This expertise will increase the capacity northern educational institution to overcome geographic challenges associated with providing higher education opportunities to people living in Northern rural and remote areas.

## ONTARIO

### Example Two:

#### Ontario Mineral Industry Cluster

Mining and mineral industry makes a significant contribution to the province's economy and continues to be a key industry in Northern Ontario's economy. For many communities in the North, their livelihood depends upon the industry's continued success. The mineral industry cluster creates employment through its business support services such as suppliers and services, legal and accounting, consulting services, etc. This cluster is a geographically connected group of inter-related industries and institutions that compete but also co-operate. Clusters have been shown to create wealth and attract investment. The Ontario Mineral Industry Cluster's production and supply and services sales represents approximately \$10 billion in 2001.

To further maximize the potential of the province's mineral industry cluster, the Government of Ontario announced the creation of the Ontario Mineral Industry Cluster Council (OMICC) in November, 2003. This council is mandated to foster a sustainable and rising standard of living from Ontario's mineral industry and to bring together industry and organizations to create more prosperity for Northern communities.

There are a number of development projects underway in Northern Ontario, for example, Falconbridge Inc. is currently supporting two large development projects in Northern Ontario. The \$413 million net capital development at Nickel Rim South nickel

deposit in Sudbury and a \$100 million nickel project in Montcalm, 70-km northwest of Timmins.

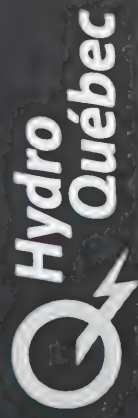
The mining/mineral industry provides a base for mining supply and service companies, even in communities that do not have mines. For instance, North Bay boasts about 65 mining supply and services business employing about 1,300 people directly and about 2,000 indirectly. Companies in North Bay and other mining supply and service companies in other communities provide their goods and services to Northern Ontario mines and mines around the world.

Northern Ontario has established some leading edge research and development capacity by building on the direct mining activity, and developing the mining supply and service industry. With the assistance of the federal, and provincial governments as well as the private sector, Northern Ontario is home to Mining Innovation, Rehabilitation and Applied Research Corporation (MIRARCO), Northern Centre for Applied Technology Inc. (NORCAT) and the Canadian Mining Industry Research Organization, (CAMIRO). These organizations contribute to the growth of the industry by promoting and creating new and innovative ways to support mining activities.

The Ontario Mineral Industry Cluster Council will examine ways to create or attract more high quality jobs to the North through mining related, value-added activities, such as exploration and development of the next generation of very deep mines, and new innovative technology developments in production, milling, smelting, refining and rehabilitation.







# *Hydroelectric Development Partnerships with Local and Regional Communities*

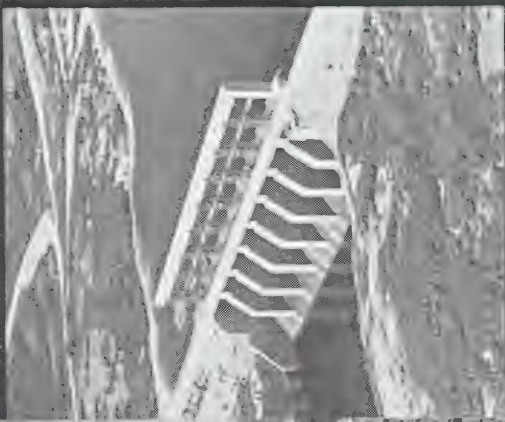
Northern Development Ministers' Forum  
October 2004, Chibougamau

# ***Table of Contents***

- 1. Profile of Hydro-Québec**
- 2. Spinoffs from our projects**
- 3. Partnerships with the community**
- 4. Procurement of goods and services**
- 5. Forecasts – *Strategic Plan 2004-2008***
- 6. Conclusion**



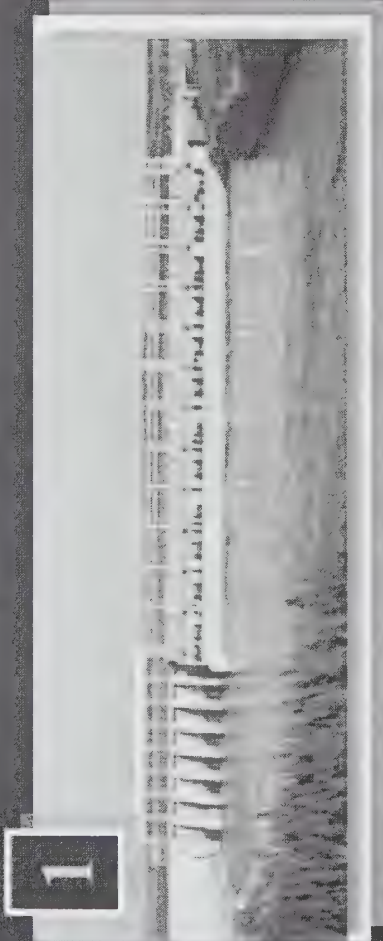
# 1. Profile of Hydro-Québec



Hydro-Québec's head office, Montreal

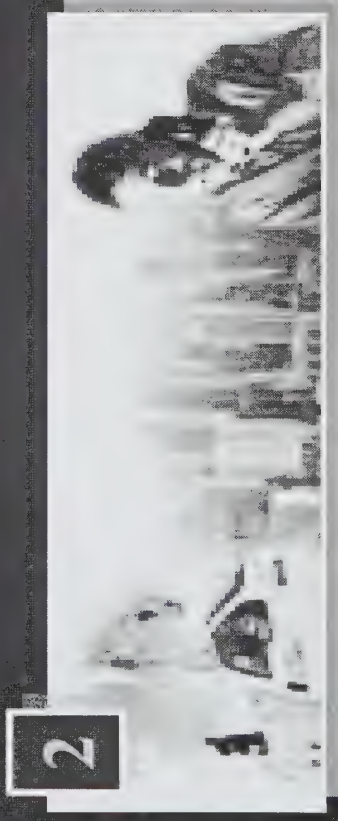


# Our main divisions



1

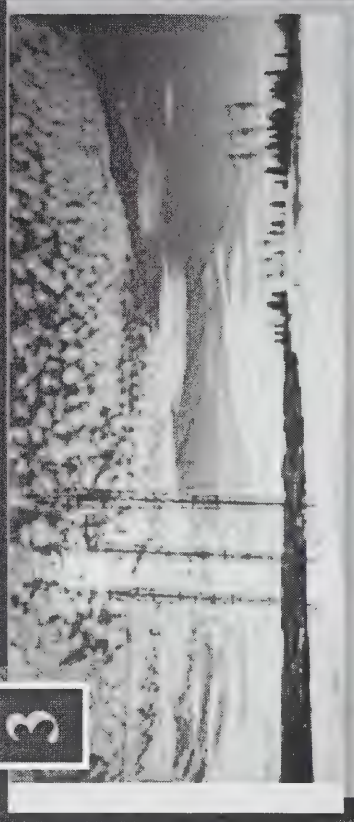
•Hydro-Québec Production  
[generation]



2

•Hydro-Québec Distribution  
including Client Services

3



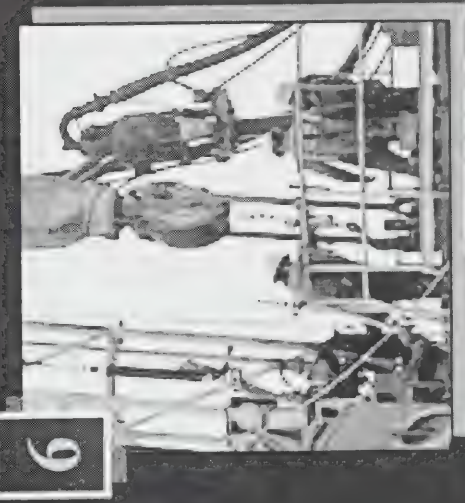
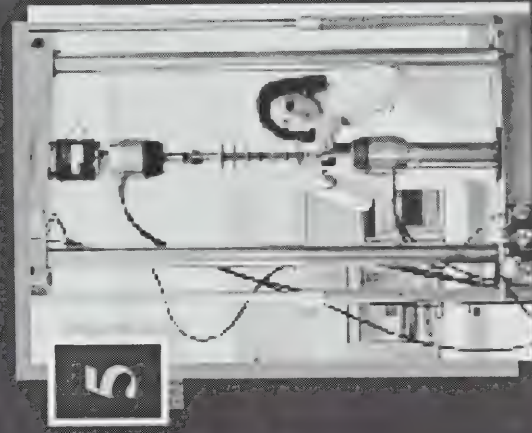
•Hydro-Québec TransÉnergie  
Transmission and network management



# Our main divisions (cont.)



•Hydro-Québec Équipement  
Construction and rehabilitation/repair



•Hydro-Québec Technologie et  
développement industriel  
[technology and industrial development]

•Hydro-Québec Pétrole et Gaz  
Oil and gas exploration

# *Hydro-Québec is also...*

- ✓ One of the largest electricity companies in North America providing electric power generation, transmission and supply across all regions of Quebec
- ✓ One of the largest producers of green energy
- ✓ Over \$3B in investments
- ✓ \$11.4B in sales



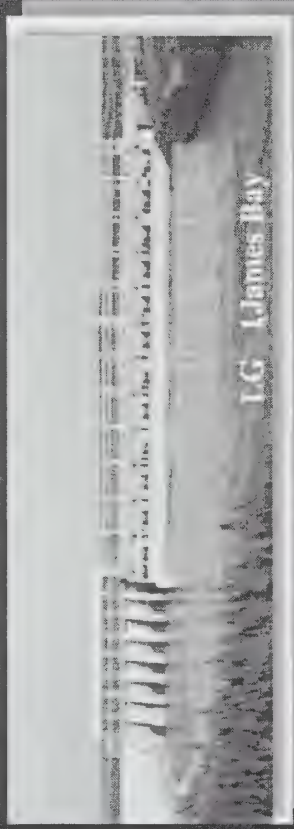
# Hydro-Québec is... (cont.)

- ✓ Stable, uniform rates – third lowest rates of all North American electricity companies
- ✓ Over 3.6M subscribers across Quebec
- ✓ Historical record load: January 15, 2004 ( $-26^{\circ}\text{C}$ ), at 36 274 MW



# Hydro-Québec's generating operations

## Types of generating stations



Hydroelectric generating stations



Nuclear generating stations



Thermal generating stations

# *Power generation*

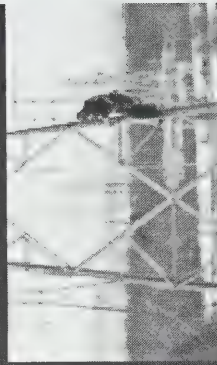
- 33 616 MW – 97% of the power generated by Hydro-Québec is hydro power, a renewable resource
- 82 generating stations, including 52 hydroelectric power plants
- Generating stations located 500 or even 1000 kilometres from major consumer centres



# ***Power generation*** (cont.)

- Major hydroelectric developments
  - Nord-du-Québec: La Grande (14 355 MW) and Laforge (1197 MW)
  - Côte-Nord: Bersimis (1969 MW), Manic (5044 MW) and Outardes (1926 MW)
  - Montérégie: Beauharnois (1658 MW)



[illegible]



# *Transmission and supply grids*

## **Transmission**

- Over 32 500 kilometres of transmission lines (735 000 and 315 000 V), some of which span 500 to 1000 kilometres
- Over 500 transmission substations

## **Supply**

- 106 500 kilometre grid
- 385 supply substations and over 2.4 million poles



# Hydro-Québec – *active across the province*

- Hydro-Québec has ten regional branches
- Over 21 900 employees (permanent and temporary)
- Over half of Hydro-Québec's staff works in the different regions of Quebec





# *Hydro-Québec's regional branches*

- **Mission:**

To maintain ongoing relations and facilitate the development of partnerships with local and regional communities.

- **Aim:**

To ensure a good fit between the company's operations and projects and the local environment, and contribute to the vitality of the host communities.

## 2. Economic spinoffs from our projects



Spinoffs in the  
communities





# *Prerequisites for carrying out development projects*

## **Projects must meet three basic prerequisites:**

- Be profitable, considering market conditions
- Be environmentally acceptable
- Be favourably received by local communities



# *Projects and investments*

**Continuing development of hydroelectric potential**

- **Construction and rehabilitation/repair of generating stations**
- **Construction of transmission lines and substations**

**These projects generate significant spinoffs for the regions**

## ***Projects and investments (cont.)***

- In 2003, Hydro-Québec Production made investments of \$1.4B
- It is estimated that every \$1 million invested in projects leads to the creation of approximately 8.9 jobs
- Sustained employment in 2003 accounted for approximately 32 600 person years



# Generating station construction projects



Toulmoustouc generating station



Péribonka camp

## *Projects underway*



Eastmain-1 generating station



Grand-Mère generating station



# **Status of generating station projects – 2004** **Construction and rehabilitation/repair**

Region - Project	Installed Power	Investment (\$M)	Status	Commissioning
<u>Côte-Nord</u>				
- SM-3	882 MW	2 400	Construction	2004-2006
- Toulousteuc	526 MW	900	Construction	2005
- Bersimis-1	No gains	187	Rehabilitation/ repair	1995-2005
- Outardes-3	Gain of 264 MW	141	Rehabilitation/ repair	2003-2006
- Outardes-4	Gain of 117 MW	145	Rehabilitation/ repair	2005-2008
<u>Abitibi -Témisc.</u>				
- Rapide-des- Quinze	No gains	145	Rehabilitation/ repair	2000-2006
- Rapide 2 and Rapide 7	No gains	130	Rehabilitation/ repair	2003-2007



## Construction and rehabilitation/repair (cont.)

Region/ Project	Installed Power	Investment (\$M)	Status	Commissioning
<u>Mauricie</u> - Rocher-de-Grand-Mère - La Tuque	Gain of 70 MW Gain of 51 MW	500 179	Construction Rehabilitation/ repair	2004 2204-2006
<u>Montréal</u> - Beauharnois	No gains	1 133	Rehabilitation/ repair	1994-2009
<u>Nord-du-Québec</u> - Eastmain 1	480 MW	2 100	Construction	2007
<u>Outaouais</u> - Mercier	51 MW	124	Construction	2006
<u>Saguenay – Lac-St-Jean</u> - Péribonka	385 MW	1 170	Construction	2008



# *Examples of economic spinoffs*

## *Construction project*

### Construction of Touloustouc generating station (2005 commissioning)

- Prior to project start-up, forecasts were as follows:
  - regional expenditures: 40% of direct site costs, or approx. \$200M
  - 325 workers on site, on average, or 70% of workers.
- With construction still underway, results are:
  - \$188M in regional economic spinoffs
  - 2/3 of workers are from the region
  - 10% of workers are from Aboriginal communities.

At the current rate, forecasts will likely be exceeded.



# ***Examples of economic spinoffs***

## ***Rehabilitation/repair project***

### **Rehabilitation of Rapide-des-Quinze**

- Work between 2000 and 2006
- Local spinoffs to date are in the order of \$25.4M and represent 41% of contracts awarded
- As regards the regional workforce, in 2003, over 61% of workers were from the region
- An economic spinoff committee was set up in conjunction with the community and is working closely with Hydro-Québec



# *Economic spinoffs and community expectations*

## *Hydro-Québec's involvement*

- ☐ Every construction or rehabilitation/repair project generates economic, human and social expectations
- ☐ Hydro-Québec is careful to ascertain community concerns
- ☐ Economic spinoff committees are set up
- ☐ Hydro-Québec's regional branches get directly involved with the project managers and the communities to foster regional and local spinoffs
- ☐ Hydro-Québec is sincerely committed to fostering spinoffs from its projects and supports local communities in this regard



# ***Practices for fostering regional spinoffs***

## **An evolving approach**

### **Before 1990**

- ☐ Approach based on dividing or splitting up of large contracts
- ☐ Hiring of on-site liaison officer to raise awareness in economic circles and explain procedures for awarding contracts
- ☐ Aim: to help small business and sub-contractors
- ☐ Resulted in on-site management problems



## *Practices for fostering regional spinoffs (cont.)*

### **Since the mid-1990s**

- 1. Setup of regional economic spinoff committees – representatives of Hydro-Québec and the area's socioeconomic circles**
- 2. Economic development agents given responsibility for ensuring that information is relayed to business people and suppliers in the region**
- 3. Site visits and meetings with regional business people and subcontractors**
- 4. Introduction of regional supplier directories**



# ***Practices for fostering regional spinoffs***

**(cont.)**

- 5. Insertion of monetary incentive clause to encourage regional subcontracting – reimbursement of up to 40% of subcontracting costs when subcontracting is to regional companies**
- 6. Ongoing monitoring of economic spinoffs**
- 7. Regular dissemination of information to the public**
- 8. Development of Web sites on projects underway**
- 9. Ongoing relations with the communities and receptiveness to their concerns**



# ***Mandate of economic spinoff committees***

- To make recommendations for fostering spinoffs in the region
- To ensure implementation of recommendations approved by Hydro-Québec
- To promote partnership between business people and suppliers in the region
- To set up regional points of sale and locations for consulting bidding documentation
- To set up a single-window information point for regional companies
- To provide information on an ongoing basis on Hydro-Québec's business practices



### **3. Partnership agreements**

- Hydro-Québec establishes the necessary partnerships for the harmonious rollout of its activities and projects in the region
- Partnerships are established with the “host environment,” that is, with the RCMs, municipalities and Aboriginal communities affected by Hydro-Québec’s activities







# ***Forms of partnership***

- 1. For generating station projects  
economic partnership – regional  
development fund**  
**Examples: Eastmain-1, Toulousteuc and Péribonka**
- 2. For power line and substation projects  
Integrated Enhancement Program (IEP),  
which provides budget allocations for  
community initiatives in support of  
environmental enhancement and regional  
development**



# Regional Development Fund

Project	Area	Amount	Length	Type of Compensation
<b>Sainte Marguerite 3</b>	RCM of Sept-Rivières Community of Uashat – Maliotenam	\$28.3M	N/A	Available
		\$20.9M	50 years	Annuity
<b>Chute-Allard and Rapides-des-Coeurs</b>	Community of Wémotaci City of La Tuque (formerly RCM of Haut- St-Maurice)	\$26.3M	55 years	Annuity
		\$18.8M	55	Annuity
<b>Toulnostouc</b>	Betsiamites RCM of Manicouagan	\$9.8M	years	Annuity Lump sum
		\$13.0M	years	
<b>Eastmain-1</b>	Municipality of Baie- James	\$35.1M	N/A	Annuity
			15 years	
<b>Péribonka</b>	RCM of Fjord-du- Saguenay RCM of Maria- Chapdelaine Community of Mashteuiatsh	\$113.1M	55 years	Annuity
		\$113.1M	55 years	Annuity
		\$113.1M		Annuity



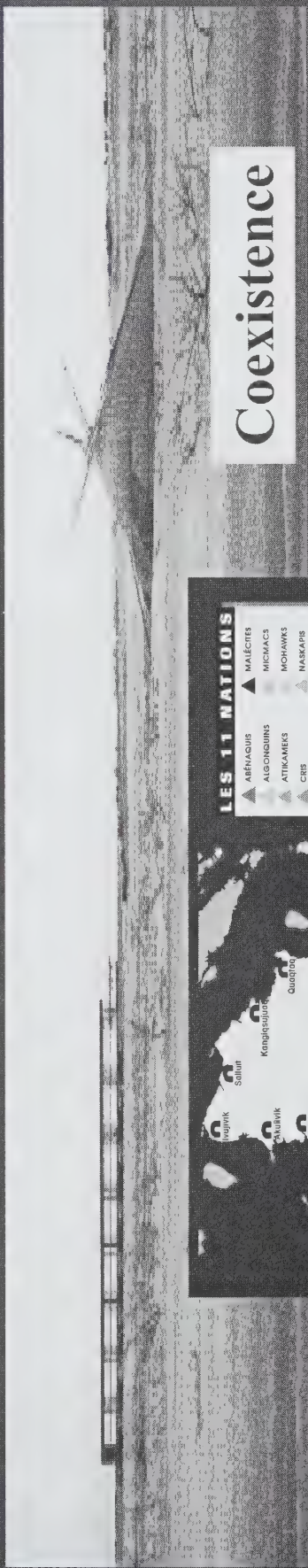
# *IEP (power line and substation projects)*

## **Integrated Enhancement Program**

- In 2003, 18 initiatives, for total budget allocations of \$4.5M
- Since Program creation in 1985:
  - 900 initiatives
  - Hydro-Québec contribution of \$85.6M has generated a total value of \$218M for the communities concerned
- Types of projects
  - wilderness area management
  - park landscaping
  - restoration and development of historical, built and natural heritage features
  - drinking water quality
  - etc.



# Agreements with Aboriginal communities



# Respect for traditions





# *Agreements between Hydro-Québec and Aboriginal communities*

## **Over 30 agreements with different Aboriginal communities in Quebec**

- Agreements specific to individual projects that take into account the needs expressed by Aboriginal communities
- Aims:
  - To foster positive impacts and mitigate negative impacts
  - To foster use of the land by the Aboriginal peoples
  - To promote the pursuit of traditional activities
  - To reconcile development objectives and the interests of the Aboriginal communities
  - To foster contracting out and jobs in the communities



# *Economic spinoffs for Aboriginal communities*

**From 1992 to 2002**

- **More than \$655M in contracts**
- **Types of contracts:**
  - client services, construction, road maintenance, forest clearing and vegetation control, fuel procurement and delivery, camp maintenance, road and air transport**





# *Projects on Aboriginal lands*

## **Cree communities**

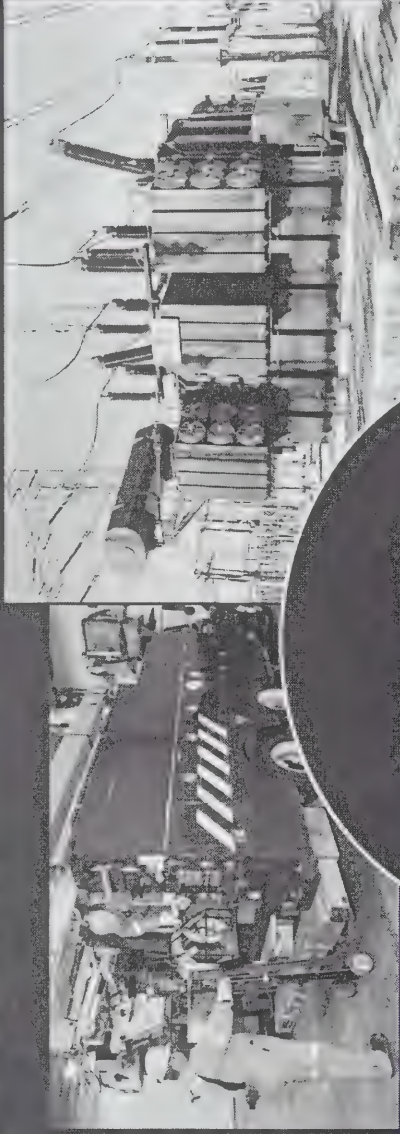
- Construction of Eastmain-1 generating station (480 MW)
- Feasibility studies regarding Eastmain-1-A hydroelectric powerhouse and Rupert diversion (770 MW)
- To date, the Eastmain-1 project has created several hundred jobs on site
- In addition, with the James Bay agreement and new agreements signed since 2002, several contracts have been awarded to the communities for plant operation, not to mention Hydro-Québec's commitment to hire 150 Cree employees by 2017

## **Innu communities**

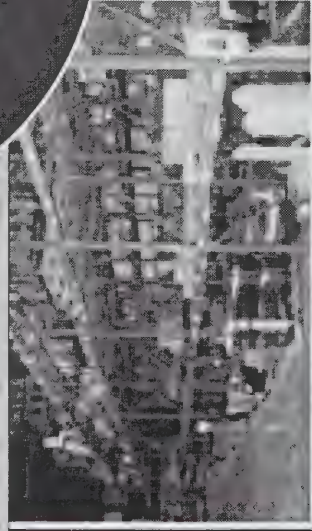
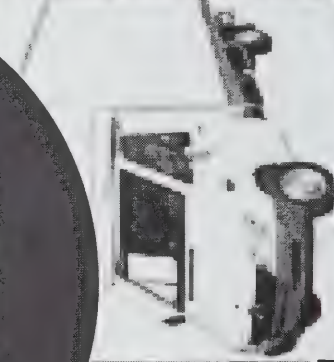
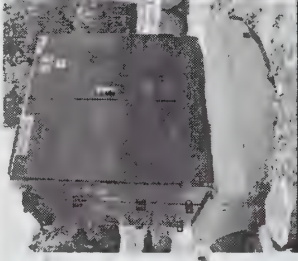
- Construction of Touloustouc generating station (526 MW)
- Construction of Péribonka generating station (385 MW)
- Feasibility studies regarding La Romaine hydroelectric development (1500 MW)



# 4. Procurement of goods and services in Quebec



**\$2.2B**  
in contracts  
in 2003





# ***Our business practices***

Hydro-Québec does all it can to ensure that its ongoing operations produce economic spinoffs in the different regions

## **Hydro-Québec's procurement policy:**

- Foster distribution of procurement activity throughout Quebec at the best possible prices
- For non-strategic goods, where regional competition is sufficient, regional procurement can reach \$1M
- Award contracts for professional services using processes that give preference to the regions in which the projects are to be carried out
- Set up data banks on suppliers and professional firms



# *Spinoffs for Quebec companies*

- 93% of goods and services are procured from Quebec companies
- \$1.6B in procurement in 2002; \$2.2B in procurement in 2003
- Suppliers of strategic equipment located across Quebec
- Examples:
  - Cable: Rimouski, La Malbaie, Saint-Jérôme, Shawinigan
  - Transformers: Trois-Rivières, Granby, Saint-Jean-sur-Richelieu, Varennes, Quebec City
  - Turbine-generator units: Tracy, Montreal
  - Utility poles: Candiac, Drummondville, etc.



# *Procurement and contract types*

In 2003, Hydro-Québec made procurements and awarded contracts totalling \$2.2B for the ongoing operation and maintenance of its facilities.

## **Examples:**

Food and caretaking, aviation, fuel, engineering, construction, upgrading and maintenance of its facilities, procurement of equipment, environment, site decontamination, telecommunications, data processing, studies, procurement of vehicles, etc.

Hydro-Québec is one of the largest companies in Quebec and an economic generator in all regions of the province.



## 5. Forecasts

### Hydro-Québec's Strategic Plan 2004-2008





# Strategic Plan 2004-2008

- \$19B in consolidated investments for 2004-2008
  - Plans to add 10 TWh to annual generation capability in 2004-2008
  - To be achieved primarily by speeding up investment projects
- Examples:
- Mauricie:  
Rapides-des-Cœurs and Chute-Allard generating stations – 150 MW
  - Nord-du Québec: Eastmain-1-A powerhouse and Rupert diversion – 770 MW
  - Côte-Nord: La Romaine generating station – 1500 MW



# Strategic Plan 2004-2008 (cont.)

- For the period 2004-2008, Hydro-Québec's operations will support employment equivalent to approximately 220 000 person years in direct and indirect jobs spread across all regions of Quebec

- Operations: 108 500 person years

- Investment expenditures:  
104 000 person years





## 6. Conclusion

Hydro-Québec's development and growth has been contributing to Quebec's collective prosperity for 60 years through:

- the creation of direct and indirect jobs
- the stability of its electricity rates
- its active role on wholesale electricity markets
- the value it creates – in 2003, Hydro-Québec generated \$1.93B in net profits and \$965M in dividends



# *Listening to the community...*

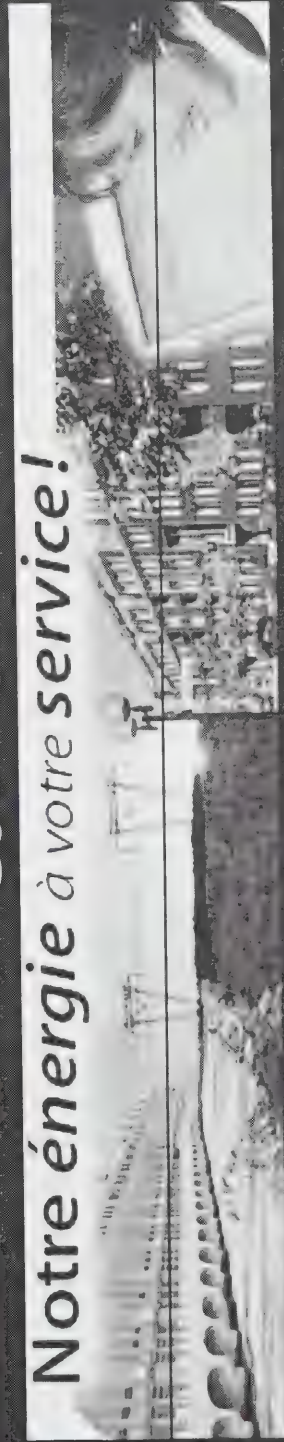
- ❑ Our business practices for both development projects and regular operations contribute to the economic development of Quebec and its regions.
- ❑ Considerable attention is paid to the concerns of the community in carrying out our projects and regular operations, to ensure a good fit between our activities and the local environment and to foster economic and social spinoffs.

***Want more information on Hydro-Québec?***

**Visit Hydro-Québec's website for more information on the organization and its projects.**

***Our Energy at Your Service!***

***Notre énergie à votre service!***



***<http://www.hydro.qc.ca>***

**THANK YOU!**





## **Saskatchewan**

### **NORTHERN DEVELOPMENT MINISTERS' FORUM PRIORITY PROJECT**

#### ***MAXIMIZING THE SOCIAL AND ECONOMIC IMPACTS OF MAJOR PROJECTS***

#### **“URANIUM DEVELOPMENTS IN NORTHERN SASKATCHEWAN”**

### **INTRODUCTION/PROJECT DESCRIPTION**

Northern Saskatchewan is the largest uranium producer in the world. The region's three uranium mines and three mills account for more than 30% of the world's natural uranium production. Production of a fourth mine (Cigar Lake) is anticipated for 2007, subject to regulatory approval.<sup>i</sup> The total known uranium reserves in the region is 756.9 million pounds of  $U_3O_8$  – energy potential of approximately four billion tonnes of coal, or 19 billion barrels of oil.<sup>ii</sup> Production is expected to continue for the next 25 years at the current extraction rate.

The uranium sector has a long history in northern Saskatchewan. A new phase of uranium mining developments began in the 1990s with the commencement of two new mines and one mill. Preceding the developments, in 1991, the Canadian and Saskatchewan governments announced a joint review of five new uranium developments proposed for northern Saskatchewan. The joint federal/provincial panel reviewed the environmental, health, safety, and socio-economic impacts of the proposed projects, in addition to the historical impacts of the uranium industry in northern Saskatchewan; the public was actively involved in consultations. The recommendations from the panel discussions helped to further shape, and build on past successes of, the uranium sector's contributions toward maximizing the social and economic benefits for residents of Saskatchewan's north. Recommendations from the panel hearing were also applied to existing uranium operations.

In response to the joint panel, the provincial government committed to making changes to uranium mineral surface lease agreements, including strengthened efforts to ensure maximum socio-economic benefits from mines to residents of Saskatchewan's north. In addition, other major changes were undertaken to improve the strategies and institutional operations. Particular initiatives include: the Multi-Party Training Plan (MPTP) and the Environmental Quality Committee (EQC) supported by a Northern Mines Monitoring Secretariat (NMMS).

This summary highlights “best practices” used in the northern Saskatchewan uranium industry to maximize benefits for residents of Saskatchewan's north. An appendix provides a partial list of other initiatives/programs that also support this goal.

### **CONTEXT**



Northern Saskatchewan covers about half of the province (320,000 square kilometers) and is home to approximately 3.5 per cent of the province's population (36,000 people). An estimated 84 per cent of the population is Aboriginal ancestry – Cree, Dene, and Métis.<sup>iii</sup>

The northern population is growing at a faster rate than the rest of Saskatchewan and, although improving, still has lower levels of employment, education, and income compared to the province as a whole.

## MODELS

Over the past 20+ years, the uranium industry, provincial and federal governments, education and training partners, and Aboriginal agencies have partnered to maximize social and economic benefits for residents of Saskatchewan's north from uranium mining developments. This includes the introduction of northern socio-economic benefits in Mineral Surface Lease Agreements and Human Resource Development Agreements during the mid-1980s, to Multi-Party Training Plans and increased community involvement/awareness in the uranium industry during the 1990s (and onward).

### 1. Mineral Surface Lease Agreements(SLA)/Human Resource Development Agreements(HRDA)

Mining companies operating in northern Saskatchewan are required to negotiate a surface lease agreement (SLA) with the provincial government every time a new project is planned. The agreement provides the proponent with land tenure, ensures adequate provincial regulatory control over environmental protection, worker health and safety, and socio-economic benefits for residents of Saskatchewan's north from northern mining operations.

The surface lease process reflects a cooperative approach by government and industry to achieve mutually beneficial northern development objectives. In 1986, socio-economic requirements to the SLA were introduced. The current "next generation" SLA was established in 1999 and reflects government and industry commitments made during the Joint Federal-Provincial Panel on Uranium Mine Developments in Northern Saskatchewan,<sup>iv</sup> current policy and provincial regulations. The SLA clarifies mining companies' social and economic benefits commitments and increased public reporting requirements.

Social and economic benefits made by each company are detailed in an appendix and include:

- Employment Commitment;
- "Stay in School Program" Commitment;
- Northern Business Participation Commitment;
- Community Vitality Study Commitment;
- Employee Education and Training Commitment;
- Employee Services Commitment;

- Public Involvement Commitment.

Each SLA requires the proponent to enter into a separate Human Resource Development Agreement (HRDA) in which the employer commits efforts to increase the hiring, training, advancement of residents of Saskatchewan's north, and increased utilization of northern contractors and businesses. Annual Human Resource Development Plans target job categories for northerner preference or advancement, and northern communities whose residents will be given priority for targeted jobs.

## 2. Multi-Party Training Plan (MPTP)

The MPTP is a cooperative training-to-employment initiative among public, private, and non-profit organizations. First negotiated in 1993 and renewed twice (1998, 2003), it addresses barriers to residents of Saskatchewan's north getting jobs, combines resources, and links training directly to the mineral sector's demand. Each MPTP builds on the successes of the previous plans and responds to the changing labour market needs.

During Phase I and II (1993-2003), partners shared \$30 million in funding and in-kind contributions, exceeding their goal of \$23.5 million. Funds supported a broad range of training such as basic education, skills training, and apprenticeship training delivered primarily through Northlands College. During Phase II, industry provided \$2 million for education promotion activities including scholarships, school awards, school tours, and Cameco Access to Engineering and Sciences program (CAPES).

Partners committed \$13.7 million for Phase III (2003-2008). The third phase continues, and expands upon, the goals of Phase II, and will provide programs that support the retraining of current employees, foster development of northern businesses, and facilitate innovative initiatives with schools to improve students' academic achievements and career awareness.

Funding partners of the MPTP III include:

- *Province of Saskatchewan:* Saskatchewan Learning; Saskatchewan Northern Affairs; Saskatchewan Community Resources and Employment; Saskatchewan Apprenticeship and Trade Certification Commission;
- *Northlands College;*
- *Aboriginal Authorities, through Aboriginal Human Resource Development Agreements:* Prince Albert Grand Council; Meadow Lake Tribal Council; Methy Pathways Board Inc. – Northern Region II; Northcote Métis Development Corporation – Eastern Region I; Métis Employment and Training – Beauval – Northern Region III; Jim Brady Employment and Training Centre – Northern Region I;
- *Northern Mining Industry:* Cameco Corporation; Claude Resources Inc.; Cogema Resources Inc.



The MPTP took shape under the umbrella of the Northern Labour Market Committee (NLMC), a forum established in the 1983 as a vehicle and clearinghouse to identify and review labour market needs and future trends in key northern resource sectors. The partnerships and commitment to collaborative approaches developed within the NLMC provided the foundation for the MPTP.

### **3. Environmental Quality Committee (EQC)/Northern Mines Monitoring Secretariat(NMMS)**

#### **a) Environmental Quality Committee:**

The Northern Saskatchewan Environmental Quality Committee (EQC) provides communication linkages among northern communities, the uranium industry, and government departments and agencies tasked with regulating the industry. The EQC gives northern communities opportunities to participate in the monitoring and regulation of the uranium mining industry and influence decision-making in the uranium industry. Developed in response to recommendations made in the Joint Federal/Provincial Review Panel on Uranium Developments in Northern Saskatchewan, the committee is comprised of “impact communities” defined in the Human Resource Development Agreement negotiated by each mine.

#### **b) Northern Mines Monitoring Secretariat:**

The Northern Mines Monitoring Secretariat provides coordinated technical advice and logistical support for the operations and initiatives of the EQC and serves as a networking and central clearinghouse for functions regarding industry issues and developments. The NMMS is comprised of provincial and federal government representatives that have regulatory or developmental roles in Saskatchewan’s uranium industry.

### **4. Uranium Industry Contributions (Cameco Corporation and AREVA)**

In addition to the initiatives outlined above, and in-line with commitments made in SLAs, the uranium industry has taken a proactive approach to supporting northern development, undertaking a number of strategies that contribute to the overall well-being of residents of Saskatchewan’s north. The two uranium operators in northern Saskatchewan are Cameco Corporation and AREVA (previously COGEMA Resources Inc.).

Cameco Corporation has developed five major strategies as part of their ongoing relationship with residents of Saskatchewan’s north. The five thrusts are employment, education and training, business development, environmental protection, and community development/engagement.

AREVA has developed northern employment programs, assists northern communities through corporate donations and other initiatives aimed at improving the quality of life, supports education and training through a scholarship program, and engages in community consultations.<sup>v</sup>

The two companies undertake a number of initiatives together. Of particular note, the uranium industry led the formation of the Athabasca Working Group (AWG) to address major concerns identified by communities from a unique geographic region. From the AWG developed the Impact Management Agreement (IMA). The Agreement, signed by six of seven communities from the AWG, and Cameco Corporation, Cigar Lake Mining Corporation, and COGEMA Resources Inc. (now AREVA), includes: environmental protection and compensation; employment, training, and business development opportunities; and, benefits sharing. The costs are sponsored by the uranium industry.

As part of the IMA, the communities are actively involved in monitoring the environmental impacts of uranium projects. Communities select monitoring sites and collect samples. In the case of a loss caused by mine emissions or spills, the IMA outlines the claim settlement process and types of compensation available. As part of the “benefits sharing” section of the IMA, uranium industry contributes to enhancing the education, training, and health, cultural, recreational and economic development of the region.

Other initiatives undertaken collaboratively by the uranium industry include: undertaking community consultations; funding and participating on the Community Vitality Monitoring Process – a program to assess the social and well being and northern residents’ quality of life.

## OUTPUTS/OUTCOMES/NORTHERN BENEFITS

The initiatives undertaken by partners in the uranium sector have led to many positive benefits for northern Saskatchewan. Impacts in three focal areas (economic, education and training, and community capacity building) are identified below.

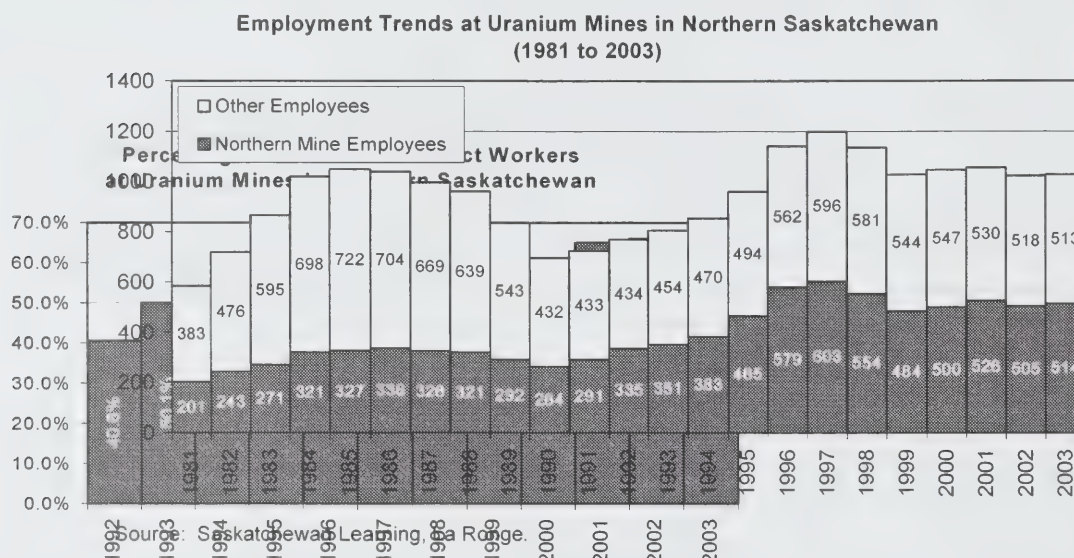
### 1. Economic Impacts

The uranium industry is one of the major employers in northern Saskatchewan. In addition to direct employment, many northern businesses provide goods and services to the northern mine sites. Highlights of the industry’s economic impact in northern Saskatchewan follow:

- The percentage of residents of Saskatchewan’s north directly employed by uranium companies at mine sites has increased from 44% in 1992 to 50% in 2003.
- The percentage of northern contract workers at uranium mine sites has increased from 40% in 1992 to 67% in 2003.
- In 2002, northern businesses received \$67.55 million (40.4 per cent) of contract goods and services.
- In 2003, the uranium industry employed an average of 770 residents of Saskatchewan’s north (long-term employees and long-term contractors). Seventy per cent of all northern workers continue to live in northern Saskatchewan, taking home wages of more than \$23 million annually.



- Cameco Corporation has 16 significant northern suppliers, 10 with majority Aboriginal ownership. An example of a successful northern business includes:
  - Mudjatik-Thyssen Mining Construction Joint Venture<sup>vi</sup> (half owned by Mudjatik partnership, a consortium of 11 northern aboriginal partners, and half by Thyssen Mining Construction Ltd. of Regina). Over the past six years, Cameco has awarded the joint venture contracts in excess of \$150 million. In addition to employing hundreds of Aboriginal people, the partnership has returned millions of dollars in dividends to its Aboriginal community partners.



Source: Saskatchewan Learning, La Ronge.

## 2. Education and Training (MPTP)

The first two phases of the MPTP involved delivery of 228 programs with 3246 enrollments (82% Aboriginal).<sup>vii</sup> The graduation and completion rate was 77% for Phase I and 86% for Phase II. Of the 1,935 individuals who took training under the MPTP, 1,062 students were tracked to employment at mines, construction, trades, or mine contractors. Of those, 596 were still employed as of December 2003, with the majority working in skilled positions: trades (26%); equipment/mill operations (39%); supervisory, professional, or technical positions (19%); support services (15%).<sup>viii</sup>

Other highlights include<sup>ix</sup>:

- 1,213 training certificates awarded in apprenticeship, technical, and skills training in academic and workplace upgrading.
- Since 1993, more residents of Saskatchewan's north employed with mining companies and contractors (42% compared to 50%), and hold more technical (34% compared to 38%) and supervisory positions (14% compared to 20%).
- The northern Aboriginal workforce increased from 480 workers (35% of total northern mining operations workforce) in 1992 to 700 workers (42%) in 2003.

## 3. Capacity Building

Northern communities are actively involved in the uranium sector through the EQC program and other initiatives. Specific achievements under the EQC program include:

- Presentation to the Atomic Energy Control (AECB) regarding the importance of Cluff Lake mining operations to residents on the northwest side of the province; AECB indicated the presentation was the deciding factor to renew Cluff Lake's operating license.
- Input into the development of "next generation" surface leases for northern uranium mines.
- Participation on decommissioning and reclamation plans, and the uranium mine operating license renewal process.
- Profile of EQC activities and initiatives to northern communities through radio broadcasting, annual reports, and an insert in the north wide distributed *Opportunity North* magazine.
- Discussion of uranium mine activities and their regulation in northern Saskatchewan with the president of the Canadian Nuclear Safety Commission (CNSC).
- Involvement in, and provision of a "northern perspective" on Saskatchewan Environment's Cumulative Effects Monitoring Program, a multi-year scientific program focused on monitoring environmental components.

#### **4. Additional Impacts**

In addition to the impacts outlined above, the uranium industry has made generous contributions to recreational, cultural, and health developments.

## **CONCLUSION**

For over twenty years, the uranium industry, provincial and federal governments, and other partners have contributed to the overall development and well being of northern Saskatchewan residents and communities. Many initiatives are in place, and are intricately intertwined, to produce positive outcomes for residents of Saskatchewan's north. The long-standing "partnership approach" to development in northern Saskatchewan provided the foundation for maximizing social and economic benefits for residents of Saskatchewan's north in the uranium industry.

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## APPENDIX

### INITIATIVES CONTRIBUTING TO MAXIMIZING SOCIAL AND ECONOMIC BENEFITS FOR RESIDENTS OF SASKATCHEWAN'S NORTH

INITIATIVE/PROGRAM	PARTNERS	OUTPUTS/OUTCOMES
<p><b>Highways 102/905 Industry Partnership Agreement - Trucking Partnership Program (TPP)</b>  <i>Formed 1994</i></p> <p><b>Description:</b> A partnership agreement, originally signed in 1994 and renewed in 1996, between major northern mining companies and the Province that permits the companies to use larger, more efficient trucks to improve transportation efficiencies. Savings in freight costs are measured and the companies contribute a significant proportion of these related cost savings to reinvestment in northern highway improvements.</p>	<p>Saskatchewan Highways and Transportation/uranium industry</p>	<ul style="list-style-type: none"> <li>Estimated annual haul savings of approximately \$1.4 million</li> <li>Cumulative revenues over the past 10 years of approximately \$12.4 million</li> <li>Corresponding cumulative road improvement expenditures of approximately \$10.9 million</li> <li>Significant northern employment and contracting opportunities also realized in northern highway improvements projects.</li> </ul>
<p><b>Community Vitality Monitoring Partnership Process</b>  <i>Formed 1999</i></p> <p><b>Description:</b> Uranium mining industry program established to assess the community vitality (the social well being and quality of life of residents) in northern Saskatchewan. The goal is to identify and track indicators that provide insight into community vitality such that stakeholders can use that knowledge to improve and maintain the quality of life in northern Saskatchewan, focusing in particular on the following: 1) providing information related to uranium mining impacts on community vitality that is useful to northern community stakeholders; 2) encouraging partnerships that will work cooperatively on specific community vitality monitoring activities of common interest; and, 3) developing communication activities that will assist northern community stakeholders to use community vitality monitoring</p>	<p>Cameco Corporation, AREVA, Northern Mines Monitoring Secretariat, Population Health Unit, Northern Health Districts</p>	<p>Development of the following reports</p> <ul style="list-style-type: none"> <li><i>The Northern Saskatchewan Migration Survey</i></li> <li><i>The Northern Food Basket Study</i></li> <li><i>A Youth Initiatives Conference</i></li> <li><i>"We Say" ....Northern Saskatchewan Youth Workshop</i></li> <li><i>Athabasca Communication Workshop</i></li> </ul>



INITIATIVE/PROGRAM	PARTNERS	OUTPUTS/OUTCOMES
<p>information to improve and maintain the quality of life in northern Saskatchewan.<sup>x</sup></p> <p><b>Northern Labour Market Committee</b> Formed 1983 <b>Description:</b> A forum established in the 1980s as a vehicle and clearinghouse to identify and review northern labour market needs and future trends in key task-oriented sub-sectors. The committee has small task-oriented sub-committees as a means of forming effective stakeholder partnerships to address regional and industrial employment and training issues.</p>	<p>Over 80 different agencies among training, funding, economic development, governments, Aboriginal agencies, and industry sectors operating in the northern region of Saskatchewan.</p>	<ul style="list-style-type: none"> <li>• Implementation of the Multi-Party Training Plan administered by mineral industry representatives. This initiative has won three national and provincial awards for innovation and partnerships.</li> <li>• Five-year cooperative training-to-employment Forestry Partnership initiated in 2001 to address the skill and professional training needs of the provincial forestry industry.</li> <li>• Establishment of four local training councils that assess community labour market issues.</li> <li>• North-wide strategic planning under the Education and Training Sub-committee, which facilitates a collaborative approach in the planning and delivery of education and post-secondary education in northern Saskatchewan.</li> <li>• Training and services facilitated for apprentices, workers in traditional economies, youth, the disabled, and career/job seekers.</li> <li>• A health sector partnership of the three northern health authorities, which is developing a strategy to address health care skill shortages in the north.</li> <li>• An annual regional training needs and labour market overview to assist program planners.</li> <li>• Sense of cooperation developed in the north, promoted in an atmosphere in which training is valued as a key means to enable northern people to participate in the economic development of the province.</li> </ul>
<p><b>Northern Development Fund</b> Formed 1995</p>	<p>Saskatchewan Northern</p>	<ul style="list-style-type: none"> <li>• Since its inception in 1995 the NDF has provided \$21.5 million in loans and grants in support of</li> </ul>

INITIATIVE/PROGRAM	PARTNERS	OUTPUTS/OUTCOMES
<p><b>Description:</b> The Northern Development Fund (NDF) was established in February 1995 to stimulate and support economic and business development in northern Saskatchewan, and to encourage diversification and job creation. The fund provides a combination of loan and grant programs for northern entrepreneurs and primary producers. A nine-member Northern Review Board (NRB) composed of experienced business people, leaders, and professions from various northern communities oversees the operations of the NDF.</p>	<p>Affairs</p>	<p>economic development in northern Saskatchewan.</p> <ul style="list-style-type: none"> <li>• Additional funding of \$2.9 million has been facilitated through "20 loan syndication" arrangements with seven other funding agencies.</li> </ul>
<p><b>Employment and Business Development</b></p> <p><b>Description:</b> Maximization of employment and business opportunities afforded to residents of Saskatchewan's north as a result of increased uranium mining activities in the region. The uranium mining industry has made strides through involvement in the MPTP and individual corporate northern business development strategies.</p>		<ul style="list-style-type: none"> <li>• In 2002, Cogema Resources Inc. purchased 40.4% of its total \$42.3 million in goods and services from northern businesses and joint ventures.</li> <li>• In 2002, Cameco Corporation awarded 40% of its total \$125 million in goods and services to northern businesses and/or joint ventures.</li> <li>• Both uranium mining companies continue to dedicate time and resources to further increase the development of northern businesses to supply the mining industry and to provide effective training-to-employment opportunities to northern residents.</li> </ul>



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<sup>i</sup> “Uranium in Saskatchewan”; available from <http://www.cogema.ca>

<sup>ii</sup> AREVA; available from <http://www.cogema.ca>

<sup>iii</sup> Census 2001

<sup>iv</sup> Reports published between 1993 and 1997.

<sup>v</sup> AREVA; available from <http://www.cogema.ca>

<sup>vi</sup> Financial assistance from the Northern Development Fund (NDF) grant program assisted in the evaluation, financial assessment, and negotiation of a joint-venture agreement between the consortium of northern community and First Nations partners with Thyssen Mining Construction of Canada Ltd. The NDF program was created in response to the Joint Federal/Provincial Uranium Panel Reports on Uranium Developments.

<sup>vii</sup> *Multi-Party Training Plan Phase I and II: Training for the Mineral Sector – Quick Fact Sheet*, Saskatchewan Learning, La Ronge

<sup>viii</sup> *Report on Multi-Party Training Plan For the Mineral Sector Phase I and II, Northern Region Office*, Saskatchewan Learning, La Ronge, March 1, 2004.

<sup>ix</sup> For the entire northern mining industry, not specific to the uranium sector.

<sup>x</sup> *Community Vitality in Northern Saskatchewan: Fourth Annual Report of the Community Vitality Monitoring Partnership Process 2002*, Community Vitality Monitoring Partnership Process Coordinating Committee

## **Yukon**

### **2007 Canada Winter Games – Pan Northern Approach**

An exciting opportunity is on the horizon for northern people and industry with the Canada Winter Games which are scheduled to take place in Whitehorse Yukon from February 24th to March 10th of 2007. Yukon's Premier Dennis Fentie, Premier Okalik of Nunavut and Premier Handley of the Northwest Territories are partnering to deliver a Pan-Northern approach to hosting these Games.

All of the northern governments are very enthusiastic to share in the hosting of this spectacular national sporting and cultural event. This will be a unique and memorable event as this will be the first time that the Canada Winter Games will be hosted North of 60. It is also the 40<sup>th</sup> anniversary of this important event which binds the country together while creating positive developmental settings for our youth.

The North will be provided an exceptional opportunity to host the South. It will allow all three territories to join hands in showcasing our culture, our people, our communities, as well as our many economic opportunities. The marketing potential of this partnership is beyond anything that the North has experienced to date.

Athletes from every province and territory across Canada will descend on Whitehorse in 2007 and our Games will be the last Canada Winter Games before the 2010 Olympics in Vancouver/Whistler. This will be our opportunity to host Canada's future Olympians as our podium stars, perhaps on the 2010 podium too!

Extend your reach and join us in the delivery of this outstanding opportunity. We expect to see volunteerism at its best as all three territories will provide a share of committed volunteers to organize and put on these Games.

We have begun to see the economic impact of the Canada Winter Games. Construction has already increased. The very numbers of those attending and participating in the Games will have a major impact on the economy.

One of the positive social impacts from the Games will be the development of a Pan-Northern team of organizers and workers who can be called upon for other Pan-Northern projects.

The Canada Winter Games offers opportunity to promote more than the athletes and cultural presentations. People beyond our borders will be able to see and appreciate the unique lifestyle and the many cultures of the North. We have an extraordinary opportunity to tell a story about our place in the world, our people and our dreams for the future....let's amaze the world together.





**Appendix 2**  
**Maximization examples identified internationally**  
**by the Observatoire de l'École Nationale**  
**d'administration Publique (Énap)**





# **INITIATIVES TO MAXIMIZE ECONOMIC AND SOCIAL BENEFITS**

Northern Development Ministers Forum

July 2004





## Foreword

During the 2003 Northern Development Ministers Forum, held in Iqaluit, Nunavut, the ministers present identified, at the suggestion of the Government of Quebec, the maximization of economic and social benefits from large-scale projects in the North as a new priority issue.

The Governments of Quebec and the Northwest Territories were assigned responsibility for developing this theme, and a working group was established.

Accordingly, and at the request of the Governments of Quebec and the Northwest Territories, ENAP's *Observatoire de l'administration publique* was given the mandate of identifying international examples that could be used to guide the governments and their private partners in the maximization of economic and social benefits from large-scale projects in the Canadian North.

Five themes were identified, with five examples or practices to be chosen for each:

- ▶ Comprehensive maximization policies;
- ▶ Mining sector;
- ▶ Energy development, hydroelectric and pipeline sector;
- ▶ Forestry sector;
- ▶ Transportation infrastructure.

The report was prepared under the supervision of Jacques Auger, a research coordinator commissioned by the *Observatoire de l'administration publique*, with the assistance of researchers Marie-Helen Brisebois and Dolorès Grossemy. Research assistants Karine Latulippe and Tarik Sadik also participated. Danielle Landry was responsible for editing and layout.





## Methodological considerations

In relation to the items outlined in the specifications, the Observatoire conducted the research using documents available on the Internet, in data banks and with information obtained through telephone calls or e-mails to the organizations under study.

Five meetings were held with designated representatives of the Northern Development Ministers Forum working group. These meetings enabled us to establish a framework for the study, to determine the most relevant practices to include in the final report and to exchange ideas about the content of the records and the progress of the work. More than 40 practices were presented during these meetings, 25 of which were selected for inclusion in this report.

Each record is the product of an effort that involved research, interviews and writing, and presents general information on the subject being studied. The objective of the report was to provide a brief overview of general information collected from around the world. The research is not meant to be exhaustive. Clearly, a complete summary of the literature would have required more than one and a half weeks of work per theme. We tried insofar as possible to find information on each practice from several sources.

For some practices, there was an abundance of information available on the Internet, while in other cases, documentation was more difficult to come by. Although some direct inquiries were made, our Internet research remains the principal source of the information presented here. Every effort was made to find points of comparison between the practices, such as financial statistics that reveal the total cost of the entire project, as well as annual expenditures.

Several financial statistics are presented throughout this report. In order to facilitate understanding and comparison between projects, monetary values have been converted into Canadian dollars according to the exchange rate in effect for the current operating year.





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# THEME 1: COMPREHENSIVE MAXIMIZATION POLICIES

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## 1. Definition and context

Although different in many ways, most natural resources are exploited in regions far from large urban centres. These regions, often less populated, do not benefit from the same advantages or infrastructures as do big cities. The inhabitants of these regions generally have a lower quality of life than their urban counterparts.

To offer a similar quality of life to all their populations, the governments must invest in regional development. It was in this context that several comprehensive policies for maximizing the benefits of natural resource development for local populations were originally developed. These policies seek to have these rural and remote populations benefit at least in part from the natural wealth exploited in the regions where they live, thereby improving their quality of life.

## 2. Trends

Certain points emerged from the study of the various practices that illustrate this theme. First, the actions taken are grounded in a principle of respect for the environment and a regional development perspective. Also, the involvement of private socio-economic stakeholders seems to be necessary to the success of the various projects conducted within the framework of a comprehensive policy. Finally, the projects are often integrated into a network to facilitate the transfer of knowledge and the sharing of experience with other parties interested in regional development. This networking is very much in practice in Europe.

## 3. Presentation of practices

After identifying and studying several practices related to comprehensive policies, we selected five:

### **Regional Program in Support of Indigenous Peoples in the Amazon Basin – (PRIA) - Amazonia**

Through the maximization of socio-economic benefits from natural resource development for local populations, the PRIA program attempts to improve the quality of life of the inhabitants of the Amazon Basin and support conditions necessary for their prosperity. The program's objectives are socio-economic, socio-cultural and educational.

### **ECOPROFIT Program - Austria**

The goal of this program is to encourage rational and optimal use of natural resources through the introduction of new technologies and procedures, in an effort to reduce the environmental impact of development activities.

The benefits of adopting new management methods and procedures must be partly reinvested in efforts to improve the living conditions of the local population.



## **Regional Growth Strategy - Denmark**

To ensure economic growth and development in the remote and underdeveloped regions of Denmark, the Danish government has adopted a regional growth strategy comprising a set of projects and programs involving local authorities and private socio-economic stakeholders. A particular effort is being made in regions affected by the decrease in fishing activity.

## **INDISCO Program - India**

The objective of this program is to improve the quality of life of local populations in four Indian states through projects involving local organizations (public or private) and institutions representing local populations. These projects involve setting up an infrastructure to help design and implement initiatives tailored to each state, with a focus on sustainable development.

## **Liaison entre actions de développement de l'économie rurale (LEADER+) [links between actions for the development of the rural economy] – European Union**

The main objective of the LEADER+ program is to support rural development projects directed by local stakeholders. These projects may apply to any regional activity sector in order to revitalize rural areas and create jobs, thereby improving the standard of living in the regions. Several strategies have been developed that take into account the unique circumstances of each region.

# **Regional Program in Support of the Indigenous Peoples of the Amazon Basin (PRIA) - Amazonia**

## **1. Background**

### **1.1 Context**

Bolivia, Brazil, Colombia, Ecuador, Peru and Venezuela are the main countries in the Amazon Basin, which covers more than two thirds of the territory of Latin America.

With a total population of about 283 million, these countries are home to hundreds of aboriginal tribes comprising hundreds of thousands of individuals.

The information used to prepare this record comes mainly from a report published by the International Fund for Agricultural Development (IFAD), as well as a United Nations website.

### **1.2 Situation prior to change**

Before PRIA was implemented, indigenous peoples suffered from social marginalization, caused mainly by their poverty and isolation. In fact, despite the abundant natural resources (especially forest resources) in their area, local populations received little or no benefit from the resources, which were exploited mostly by private companies.

This situation of poverty and marginalization caused repeated conflicts between the populations in question and, on the one hand, the governments responsible, and on the other hand, the private companies.

### **1.3 Environment for change**

As a result of pressure from international bodies, and IFAD in particular, the governments of the six aforementioned governments united their efforts to involve the indigenous peoples in their society's economic development.

Private and public organizations in each region combined their actions in an effort to re-establish communications with these populations and improve their quality of life.

## **2. The model**

### **2.1 Lead agencies**

IFAD is responsible for the program. An international funding agency created in 1977 by the UN, it oversees projects based on the economic development of indigenous populations whose standard of living is generally behind that of the rest of society. In more than 20 years of activity, IFAD has funded hundreds of projects in 112 countries for an estimated total of approximately \$6.6 billion.

The Andean Development Corporation (ADC) is one of four regional development banks belonging to the Interamerican Development Bank, which co-finance development projects mainly in Latin America. The corporation manages funds from various sources and works

closely with the indigenous peoples toward sustainable development on an ongoing basis. It was mandated by IFAD to coordinate and execute PRIA.

Other agencies participated in funding the program, but to a lesser extent: the Canadian University Service Overseas (CUSO) and the UK's Department for International Development (DFID).

**Table**  
**Funding from the various agencies involved in the project**

Agency	Funding (in \$)
IFAD	1 067,000
ADC <sup>1</sup> , CUSO, DFID	933,660
Agencies representing local populations	266,700
<b>Total</b>	<b>2,267,360</b>

## 2.2 Practice

The PRIA program seeks to maximize socio-economic benefits from the development of natural resources, especially forest resources, for the indigenous peoples and to support the implementation of conditions necessary to the survival and defence of their cultures.

According to IFAD, the specific objectives of PRIA are as follows:

- ▶ Economic objectives:
  - improve the quality of life of indigenous peoples by maximizing socio-economic benefits;
  - support indigenous activities that will generate income by creating, among other things, markets for local products and by supporting the development of microprojects;
  - establish partnerships involving private companies, state-run agencies and indigenous leaders.
- ▶ Socio-cultural and educational objectives:
  - promote training programs and knowledge sharing on issues such as bilingual teaching, ecotourism and ethnotourism, food transformation, forest management, rational management and use of wild flora and fauna, high value added traditional craft production, etc.;
  - set up a communications strategy for various media in order to raise awareness about the experience and knowledge of indigenous peoples;
  - implement information and knowledge exchange networks between indigenous populations.

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<sup>1</sup> The contribution from ADC is larger than that of the other two agencies. However, we do not have exact figures on how the sum is distributed among the three agencies.



## 2.3 Management

Launched in the early 1990s, the actions carried out under PRIA are monitored by a committee composed of representatives of the Coordinating Organisation of Indigenous Peoples of the Amazon Basin, the Amazon Cooperation Treaty, the Latin American and Caribbean Development Fund for Indigenous Peoples, the ADC, IFAD and other specialists.

Included in this committee were representatives of new funding agencies, namely CUSO and the UK's DFID. A team supervised by the ADC's technical department is responsible for implementing the actions. This team is composed of people working in a variety of areas (economics, ecology, information and communications systems, etc.). IFAD receives annual activity and financial reports from this team describing the project's progress.

## 2.4 Success factors

According to IFAD, the following elements are key success factors for this practice:

- ▶ Involvement of the local population in both the decision-making process and the application of decisions;
- ▶ Respect and consideration for the cultures and lifestyles of the local populations in the six countries affected by the program in order to avoid any conflict.

## 3. Outcomes

The program has not yet been completed. Even though it began during the 1990s, it is still in progress. A summary of achievements is impossible, but the following are the main results expected by the funding agencies, as specified in the IFAD annual report:

- ▶ Improvement of activities related to natural resource management, territorial rights, bilingual teaching, production activities like the processing of medicinal plants, ecotourism, crafts, the management of wild fauna and flora;
- ▶ Capacity building among indigenous populations through various means, such as training programs for, among other things, small business management and administration;
- ▶ Mobilization of additional funds from other sources, which will be used to create new income-generating activities;
- ▶ Establishment of an interregional workshop based on experience acquired through the PRIA program on rational use and management of wood and other natural resources available in the indigenous territories;
- ▶ Organization of international workshops on the review of ecotourism and microbusiness policies;
- ▶ Creation of an Internet site and free research service to respond to inquiries from indigenous peoples.

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# **ECOPROFIT Program - Austria**

## **1. Background**

### **1.1 Context**

The Ecological Project For Integrated Environmental Technologies (ECOPROFIT), developed by the City of Graz, in Austria, was first launched in the Graz Region in 1991, in cooperation with the central government. The program was later implemented in several other Austrian and European cities.

The ECOPROFIT program has had similar results in every region in which it has been implemented. The example of the Graz region will be examined here. This region in south-eastern Austria has a population of about 250,000.

The information used in the creation of this record was obtained from the Internet site and database published by the Government of the Emirate of Dubai as part of the Dubai International Award for Best Practices in Improving the Living Environment.

### **1.2 Situation prior to change**

According to the documents consulted, in the early 1990s, the region was known for its significant industrial activity, particularly in the areas of natural resource development and processing. The industrial activity was responsible to a large extent for the environmental degradation (pollution and smog) and the deterioration of the quality of life of the local population.

### **1.3 Environment for change**

In 1989, the local authorities, with encouragement from the central government, decided to take action with regard to the disturbing environmental situation. The overriding objective of the initiatives undertaken was to reduce pollution and environmental degradation while improving the living conditions of the local population.

## **2. The model**

### **2.1 Lead agencies**

The City of Graz, in cooperation with the environmental department, initiated this program, acting on the central government's policy of decreasing pollution and protecting the environment.

The Graz University of Technology participated in the project through its professors. The latter acted as technical and scientific advisers to the governmental authorities.

CPC (Cleaner Production Centre) Austria grew out of a partnership between the environmental department and the Graz University of Technology to manage, implement and coordinate the program and to ensure the transfer of knowledge that could be useful to other European cities.



## 2.2 Practice

The ECOPROFIT Program is a public-private partnership between local authorities and private companies. The main objective of the ECOPROFIT Program, in Graz and other cities in which the program was later implemented, is to diminish the impact of industrial activities on the environment through the introduction of new technologies and procedures allowing for the rational and optimal use of natural resources.

These new management methods and procedures should lead to the extraction of additional benefits, which will be partly reinvested in the improvement of the living conditions of the local population through job creation, training, and the improvement of regional infrastructure.

For this reason, training sessions and workshops were organized for leaders of certain private companies and agencies to convince them of the need to participate in the ECOPROFIT Program. Also, members of the CPC team in charge of the ECOPROFIT Program visited each industrial site to observe the procedures and suggest new ones. These officers, assisted by consultants, ensured the provision of training for managers and employees, the implementation of new techniques and the follow-up of staff progress.

## 2.3 Management

The financial resources required for the ECOPROFIT Program (workshops, follow-up, consultation) are provided by the municipalities (two thirds of the total budget) and private stakeholders (the remaining third). According to CPC Austria leaders, this significant contribution from the local authorities can be explained by the socio-economic benefits for the local population and the investment in infrastructure that had to be undertaken. The financial resources necessary for the new technology implementation phase came entirely from private companies. However, in terms of results obtained, the investment can generally be recovered in two years or less, in 50% of cases.

The process of implementing projects under the ECOPROFIT Program began with a decision by the City of Graz. The organization in charge of the program<sup>2</sup> begins by providing the necessary training and information to company executives. The latter help them identify problems and requirements.

Once the requirements are determined, a team of company employees is formed to implement the project in the business or factory. First, the team holds between five and eight workshops in which all aspects of implementing the new technologies and management practices are analyzed.

One year after the implementation date, an ECOPROFIT Program team makes a site visit to evaluate the results. Once the evaluation is completed and the results approved, the company is given the ECOPROFIT designation.

After recovering its investment, the company commits to contributing a percentage of the additional benefits<sup>3</sup> (achieved through the implementation of new technologies and management methods) to the local authorities. The latter then reinvest the funds in various job creation, education and infrastructure activities.

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<sup>2</sup> CPC Austria.

<sup>3</sup> Information on the amounts paid by the companies was not available in the documents consulted.

## 2.4 Success factors

According to the documents consulted, the success factors seem to be awareness among the private stakeholders of the need for change and the potential for profit, their involvement in identifying requirements and choosing new procedures, and having the project implemented by teams composed exclusively of employees and managers of the companies in question.

## 3. Outcomes

The program has been in existence for about a decade. Since 1991, 53 different companies with a total of 18,500 employees have participated. The program has led to environmental conservation benefits in the Graz region because, according to the project leaders, the companies have achieved substantial savings by reducing their consumption of raw materials and basic resources, namely:

- ▶ 15,000 tonnes of raw materials;
- ▶ 580 tonnes of solvents;
- ▶ 900,000 m<sup>3</sup> of water;
- ▶ 20,000 MW/h of electricity;
- ▶ 50,000 MW/h of heating energy;
- ▶ 3,000,000 m<sup>3</sup> of natural gas;
- ▶ 500 tonnes of petroleum.

There has also been a decrease in polluting waste:

- ▶ 4,500 tonnes of municipal waste;
- ▶ 1,000 tonnes of hazardous waste.

A new program called ECONETWORK has also been implemented. More than 1000 companies in 50 European cities have participated in the program this way.

The documents consulted make no mention of the program's economic or financial benefits with regard to infrastructure or job creation.

Given its predominant environmental focus, the ECOPROFIT Program has led to a reduction in the consumption of energy and potentially polluting products. Between 1995 and 2000, the consumption of solvents plummeted by 72%, waste was reduced by 54%, water consumption decreased by 30% and electricity consumption by 8%<sup>4</sup>.

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<sup>4</sup> Novethic.

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# **Regional Growth Strategy – Denmark**

## **1. Background**

### **1.1 Context**

According to the Danish government's official website, the population of Denmark was 5,300,000 in 2003. The rural population is estimated to be 800,000, or about 15% of the total.

The regional growth strategy developed below, which was initiated at the beginning of the decade, focuses particularly on Denmark's less advantaged regions. The territories along the North Atlantic Coast and the Hvide Sande region, as well as the continental regions such as Odense, located about 150 km to the northeast of the German border, are targeted by this regional growth strategy.

The information used in the preparation of this record came mainly from a document entitled "The Danish Regional Growth Strategy", published in May 2003 by the Danish government.

### **1.2 Situation prior to change**

According to the above-mentioned document, before the coming into force and application of the strategy, the country's regional growth was unevenly distributed among Denmark's various regions. The more remote regions were developing more slowly than the larger centres.

This situation contributed to a massive migration to the urban centres of the active population in general, but particularly of young people seeking work and education – both in short supply in their native regions.

### **1.3 Environment for change**

Denmark includes more than 400 islands and territories, some of which are relatively remote regions that do not benefit from the same infrastructures available to the rest of the country. The geographical distribution is one of the factors explaining the differences between the economic development rates of the various regions.

## **2. The model**

### **2.1 Lead agencies**

The Department of Economic Affairs is the main body responsible for Denmark's Regional Growth Strategy. It provides most of the funding for the project.

Several other public and private agencies, both national and European, are involved in the implementation of the strategy, namely the European Social Fund (ESF), the European Regional Development Fund (ERDF) and the Danish Department of Agriculture.

The mission of the ESF is to fight and prevent unemployment, develop human resources and ensure social integration. In Denmark, the ESF intervenes to support the least prosperous sectors, particularly in terms of employment, trade, industry and transportation.

The ERDF tries to reduce disparities in regional development, harmonize living standards among the various regions and prevent the least prosperous regions from falling too far behind the European average.

## **2.2 Practice**

The Regional Growth Strategy consists of a set of programs to ensure economic growth and development in 15 remote regions of Denmark, regions that once survived mainly on natural resource development and agriculture.

This strategy is based on partnerships between the central government (through the Department of Economic Affairs) and the private and socio-economic stakeholders involved in the various regions.

More specifically, sustained efforts have been undertaken to revitalize and develop those regions that have experienced a sharp decline in their fishing activities, namely Bornhilm, Hvide Sande, Hanstholm, Thyborn-Harbore and Torsminde.

## **2.3 Management**

To support the Regional Growth Strategy, the Department of Economic Affairs released a total of \$12.7 million over a three-year period. The Department was also involved in funding new growth initiatives in the target regions. An additional amount of \$3.5 million from the Department of the Interior has been earmarked for the creation of jobs in the most disadvantaged municipalities.

During the year 2004, the Danish government is expected to establish a service to assist economic development. The purpose of this service is to offer technical assistance and a framework to small businesses and entrepreneurs in the target regions with regard to business management and the introduction of new information technology. The service will also help decentralize the central government's interventions, since each region will have its own service branch. The establishment of these branches will be funded partly by the government and partly by the local authorities and private and socio-economic stakeholders.

The situation in the Bornholm region is special, which is why, in addition to the above-mentioned services, the Department of Education has dedicated a total of \$320,000 over the same period to improve the region's education system.

The Regional Growth Strategy is also supported by the European Social Fund (ESF) and the ERDF. However, no information is available on the amount of support provided by these two funds.

## **2.4 Success factors**

According to the document on the Regional Growth Strategy, the success of such a program depends primarily on healthy industry. Industrial restructuring will also be carried out in the target regions in an effort to retain only those activities that respect the environment and offer

better prospects for sustainable development, which will involve both bringing them up to standard and developing them.

### 3. Outcomes

Given the strategy's wide scope and the multitude of actions to be carried out, most of which have yet to be completed, an exhaustive summary is impossible. However, according to the documents consulted, the actions that have been carried out so far have produced satisfactory results.

One example is a wood and furniture industry development centre created in Skive, in Viborg County, central Denmark. The centre was the product of a partnership between the Department of Science, Technology and Development, the Danish Technological Institute, Viborg County and companies working in the wood and furniture industries. This initiative allowed for the creation of an optimal environment in which to maximize the social and economic benefits of development in the Skive region by encouraging cooperation between wood industry companies and local authorities. The centre also conducted several training programs to bring employees up to date on market trends in design and innovation.

Some of the actions undertaken indicate that the situation in regional Denmark will improve. In order to limit migration toward urban centres, telework will be encouraged by raising employee and employer awareness and investing in new information technology.

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# **INDISCO Program – India**

## **1. Background**

### **1.1 Context**

With over a billion inhabitants, India is the second most populated country in the world. Indigenous communities represent 8% of its population (approximately 70 million people) and most of these people live in remote regions.

The INDISCO Program was a three-year initiative that was launched in 1994. The four provinces that particularly benefited from the Program were the states of Bihar (Northeast India), Orissa (an Eastern territory), Madhya (approximately 800 km west of Calcutta) and Gujarat (a Western territory on the coast of the Arabian Sea).

Most of the information used for this record came from the International Labour Organization (ILO) and the Australian Agency for International Development (AusAID) Websites.

### **1.2 Situation prior to change**

According to the ILO, populations in the remote provinces of India are socially, geographically and economically excluded. They have been witnessing the massive exploitation of natural resources in their territory that is gradually leading to the disappearance of those resources. Because of their lack of education and training, these people do not know the market value of their resources and, as a result, cannot properly defend their interests.

The precarious situation has worsened and has led to the increased migration of indigenous populations to big cities.

### **1.3 Environment for change**

According to the ILO, approximately 52% of the indigenous population lives below the poverty line. Over 55% of this population is found in the four aforementioned Indian states: Bihar, Orissa, Madhya and Gujarat. It was in these states that the INDISCO Program carried out local projects between 1994 and 1997.

## **2. The model**

### **2.1 Lead agencies**

INDISCO is an interregional program to support self-reliance of indigenous and tribal peoples through cooperatives and similar self-help organizations and is part of the ILO Cooperative Branch. It is primarily funded by the ILO and the Australian Agency for International Development (AusAID).

The ILO, through the adoption of international conventions on labour, aims to improve the living conditions of populations, especially disadvantaged communities, by establishing standards in areas such as human rights, pay, working conditions and social security.

AusAID's objective is to advance Australia's interest by assisting developing countries to reduce poverty and improve their standards of living through sustainable development. These actions allow numerous Australian businesses to have access to new markets in those countries.

Other organizations, such as the Canadian International Development Agency (CIDA) and the Rabobank Foundation, also cooperated in funding the project.

## 2.2 Practice

The overall objective of the INDISCO Program is to help improve the living conditions of indigenous peoples by encouraging and funding pilot projects implemented by local organizations (public or private) and institutions representing indigenous peoples. The goal of these projects is to assist these populations in designing and implementing tailored programs with a view to long-term development by involving both public and private socio-economic actors.

Between 1994 and 1997, the projects that affected nearly 40 villages and 2000 families had the following areas of focus:

- ▶ Managing environmental and natural resources;
- ▶ Building local structures;
- ▶ Building the capacities of indigenous trainers;
- ▶ Preserving and promoting indigenous practices;
- ▶ Preserving and managing ancestral lands.

The Program's overall strategy involved five components that related to:

- ▶ Building the organizational capacities of indigenous peoples;
- ▶ Creating new sources of income for indigenous peoples;
- ▶ Preserving and promoting traditional knowledge;
- ▶ Social marginalization and unemployment issues affecting women and youth;
- ▶ Environmental sustainability.

In this context, the following actions were carried out:

- ▶ Support for populations, through training, in order to develop the management capacities of their own institutions;
- ▶ Access to microfinancing for local projects. Funding was provided primarily by the ILO. According to that organization, those projects allowed jobs to be created and partially reduced migration toward cities;
- ▶ Access to training and employment to improve the status of women and their involvement in local economic life.

## 2.3 Management

The Program's budget,<sup>5</sup> which came mainly from ILO, AusAID, CIDA and Rabobank Foundation funding, as well as from funding from local private partners, allowed a loan system to be

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<sup>5</sup> Budget and funding information for the organizations was not posted on any of the sites consulted.

created. Through these loans, certain activities were started up, such as pisciculture and animal husbandry, workshops and assistance to bee farms.

In addition, part of the budget was set aside for purchasing materials for training youth and women (typewriters and equipment for manual labour, such as joinery).

## 2.4 Success factors

According to those responsible for the Program, the following were determining factors in the success of the INDISCO Program:

- ▶ Education and awareness campaigns were held in target villages before the program was officially implemented.
- ▶ Local customs were respected so that more people would be receptive to, and enthusiastic about, the program;
- ▶ Local wildlife was respected, which allowed the program to promote sustainable development.

## 3. Outcomes

According to the ILO, in two and a half years INDISCO India reached 20 000 individuals living in 37 villages across the four regions that the Program was involved in. Through the Program, 1182 people from indigenous populations were taught how to read and write and 3478 people received technical training. The Program created 1768 seasonal jobs and helped create approximately 70 microbusinesses. In addition, some 200 families were able to reduce their debt load because family members found employment through the Program.

Lastly, after a successful experience in India, the INDISCO Program was exported to other countries, such as the Philippines, Costa Rica and Panama.

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# **Liaison entre actions de développement de l'économie rurale (LEADER+) [links between actions for the development of the rural economy] – European Union**

## **1. Background**

### **1.1 Context**

LEADER+ is a six-year program that was launched by the European Commission in 2000 and that will continue until 2006. The program's objective is to support rural development projects at the European level. Prior to 2004, the European Union was made up of 15 countries and had a total population of over 300 million. Since ten new members have joined, the European Union's population has increased to over 370 million people.

Most of the information used for this record came from the European Union's Website and from various European Commission publications.

### **1.3 Situation prior to change**

In Europe, disparities exist in terms of standards of living and development (especially economic development) in certain regions. LEADER+ was implemented in order to harmonize and unify regional development in Europe by providing the funding and technical assistance required to carry out a multitude of projects in various European Union countries.

### **1.3 Environment for change**

In a continually changing Europe, where industry and technology development are experiencing significant advances, activities related to natural resource development have experienced a marked decline. As a result, rural regions often find themselves adversely affected and experiencing weaker economic growth, which leads to poverty among the people living in those areas and forces them to migrate to big cities.

## **2. The model**

### **2.1 Lead agencies**

The European Commission is the main organization responsible for the LEADER+ program. It proposes member country legislation, policies and programs. It is also responsible for implementing the decisions of the European Parliament and Council. The European Commission is a politically independent institution that represents and upholds the interests of the European Union.

Although the European Commission is responsible for the program, the projects are implemented and managed by Local Action Groups (LAG). LAGs are groups of public and private partners with a common rural development project in a territory. Private partners must represent over 50% of the partnership.

## 2.2 The practice

LEADER+ is aimed at all rural areas in the European Union: Germany, Austria, Belgium, Denmark, Spain, Finland, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, the United Kingdom, and Sweden. However, priority is given to smaller territories with large enough population groups (between 10 000 and 100 000 inhabitants) and human, financial and economic resources.

The main objective of the program is to support rural development projects. These projects must be under the responsibility of local actors. All activity sectors in the rural environment can be involved in order to revitalize rural areas and create jobs, which should lead to the improvement in standards of living in these regions. In order to fulfil the objective, various strategies were developed according to the unique characteristics and contexts of the regions where the projects will be implemented. These strategies focus primarily on the following areas:

- Diversifying local resources, developing SMEs, craft businesses and tourism, protecting the environment and maintaining and developing services;
- Using new know-how and technology to make regional products and services more competitive;
- Showcasing local products by facilitating access to markets, both at the national and European levels;
- Protecting and enhancing the value of natural and cultural resources;
- Implementing a process for involving and guiding new socio-economic actors.

The LEADER+ program is structured around three main themes:

1<sup>st</sup> theme: Supporting rural development territorial strategies;

2<sup>nd</sup> theme: Encouraging interterritorial and international exchanges;

3<sup>rd</sup> theme: Creating networks between territories and rural socio-economic actors.

## 2.3 Management

The implementation process of the LEADER+ program unfolds in basically the same way throughout the various European Union countries. The European Commission sets the policy guidelines and defines the priority areas, which are generally tied to the following:

- Improving the quality of life in rural regions;
- Making optimum use of natural resources;
- Maximizing the benefits of using natural resources for local populations;
- Promoting local products;
- Using new technologies to assist regional and local development.

Governments from various countries, in partnership with local and regional authorities, then submit regional projects to the European Commission, describing the strategy and the methods planned. Once the projects have been accepted, there will be a preliminary selection of LAGs at the regional level and then a final selection at the national level.

Between 2000 and 2006, the funds will come primarily from the European Agricultural Guidance and Guarantee Fund (EAGGF) (\$3.2 billion). The private partners involved in the LAGs must fund over 50% of the partnership. Currently, private partners have committed \$4.6 billion. Together, this funding provides LEADER+ with a budget of \$7.8 billion.

## **2.4 Success factors**

According to the review of this practice, it appears that the most important factor in the success of LEADER+ is that the program respects the unique regional characteristics and contexts of the regions where the projects are implemented.

Another success factor for LEADER+ is the involvement of private actors in LAGs. In fact, this involvement gives private actors more responsibility and leads to sound and effective management.

## **3. Outcomes**

The LEADER+ program follows the LEADER I and LEADER II programs. LEADER I marked the beginning of a new approach to rural development based on participation and the involvement of socio-economic actors. LEADER II continued the actions carried out through LEADER I and tried to enhance and improve them.

Given the extensive areas and the significant number of projects that are part of the LEADER+ program, which is still underway, an overall assessment of the activities is impractical at this point. However, an evaluation grid of projects that have been, or are being, implemented through LEADER+ has been created.

The program remains a building block for the future of the European community and most of the projects implemented to date have produced satisfactory results, according to the European Commission.

The European Commission and the member states of the European Union established indicators for monitoring LEADER+ projects between 2000 and 2006. The documents outlining the monitoring indicators are quite detailed. As a result, they will not be included in an annex, but instead in the CD-ROM accompanying this report.

Furthermore, the member states were required to provide mid-term evaluations at the end of 2003 for the projects that were implemented. The European Commission has not yet posted the evaluations that were to be provided at the end of 2003. However, two handbooks containing guidelines for evaluating projects will also be put onto the CD-ROM.



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## THEME 2: MINING SECTOR

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### 1. Definition and context

Mining resources have been and continue to be an important source of energy and raw materials for a large number of industries. Mining activities, such as the exploration, extraction and exploitation of minerals, generally require a large labour force.

With the development of new technologies, the discovery of new materials, the depletion of reserves and even the drop in the price of certain mine products, mining activities have come to a halt in several areas around the world. When these mining activities stop, there is often an increase in the region's unemployment rate, which leads people to migrate to other areas, especially larger cities.

It is within this context that, for a number of years now, several mining companies have established practices to develop the mining regions from an economic and social standpoint. These practices generally seek to improve the standard of living of communities surrounding the mines and ensure that there is sustainable activity in these communities even after mining is completed.

### 2. Trends

The five practices presented in this theme have similar elements. In fact, certain trends can be identified with regard to the involvement of local communities in the implementation of social and economic projects and programs, the partnership with international organizations specialized in implementing and monitoring these types of programs and the implementation of these programs before the development of mineral deposits is complete.

### 3. Presentation of practices

Five practices were chosen from the research that was carried out. They deal with the mining sector and various related projects:

#### Red Dog Mine - Alaska

This practice involves an agreement signed between a mining company, Teck Cominco Inc., and NANA, an association representing the local people who own the land and live in Northwest Alaska. Through this agreement, the company gives a percentage of its revenues to NANA, which will increase over time and eventually total 50% of the profits made by Teck Cominco Inc. NANA uses this money to finance its social and economic development activities and to improve the region's infrastructures, especially with regard to transportation, health and education.

#### Program to revitalize the former mine in Bitterfeld-Wolfen – Germany

This program focuses on the revitalization and economic development of a former mining area in Germany. Mining activities ended here in the late 1980s.

The main action carried out in this region, particularly by public administrators, was the diverting of a river to create an artificial lake in the place where the old open-pit mine used to be. Other actions consisted in creating new revenue-generating activities, training young people, improving the standard of living of the local community and protecting the environment.

### **Indigenous Partnership Program - Australia**

This agreement was signed in 1997 by Pasminco Century Mine Limited, the Queensland Government and three native title groups. It focuses mainly on achieving three objectives:

- ▶ Creating jobs and training for the local community;
- ▶ Ensuring economic development at the local and regional levels;
- ▶ Protecting local culture and the environment.

This agreement is the result of a strategic alliance aimed at encouraging the development and implementation of individual and joint projects.

### **Installation of electronic kiosks in the Castilla y León region - Spain**

The main goal of this practice, which is part of the European Territorial Employment Pact, is to install seven multimedia information kiosks in the major towns of the mining basin in Spain's Castilla y León region. Other actions relating to improving infrastructures, training, improving social infrastructure and promoting activities for senior citizens and persons with disabilities have also been carried out. All these actions aim to reduce the high unemployment rate and the number of young people migrating to urban areas.

### **Rio Tinto Sustainable Development Policy - International**

The Rio Tinto Sustainable Development Policy, in the United States, is being applied by one of its subsidiaries, Kennecott Utah Copper, which operates a copper mine in the state of Utah. Kennecott Utah Copper created a full subsidiary called the Kennecott Development Company, whose main objective is to find viable and sustainable solutions for developing lands where mining activity is no longer possible.

That is how in 2003, this company, in cooperation with local authorities and consulting firms, began the construction of a new town, to be called Sunrise. This new city, which will have close to 30,000 inhabitants, will be equipped with the infrastructures necessary to attract new investments that will boost the region's economic activity.



# Red Dog Mine – Alaska

## 1. Background

### 1.1 Context

Red Dog Mine is the largest zinc mine in the world. It is located in the Delong Mountains in Northwest Alaska, approximately 600 km north of Anchorage.

The mine is owned by the Northwest Alaska Native Association (NANA), an organization that represents the region's main community— the Inupiat. NANA acquired property rights to the surface and subsurface area of this region as a result of the *Alaska Native Claims Settlement Act*.

In 1982, a lease agreement was signed between NANA and Teck Cominco Alaska Inc. allowing Teck Cominco Alaska Inc. to operate the mine. In 2001, 513 450 tonnes of zinc and 34 500 tonnes of lead were extracted from the Red Dog Mine.

Teck Cominco Alaska Inc. is part of Cominco American, which is a subsidiary of Cominco. Cominco is a Canadian company specializing in the exploration, exploitation and processing of minerals, especially zinc; it is the largest zinc producer in the world, in fact. In addition, it owns several other mines in British Columbia, Chile and the territory of Nunavut<sup>6</sup>.

This record was prepared with the help of publications by the Chair in Aboriginal Conditions and the Mining Technology and Mining Engineering magazines, as well as the Web sites of the Alaska Industrial Development and Export Authority and the Northwest Alaska Native Association.

### 1.2 Situation prior to change

The documents and Internet sites consulted gave no information on the situation before the change. Nevertheless, the *Alaska Native Claims Settlement Act* helped put an end to the isolation of Aboriginal peoples living in Northwest Alaska. In fact, the Act has enabled these peoples to enjoy economic spin-offs from the natural resources, especially minerals, that are exploited in the region.

### 1.3 Environment for change

According to a report published by the United Nations Economic and Social Council, NANA sees the mine as a means to sustainably develop the region and improve the standard of living in local communities through job creation—all this from the standpoint of a modern economy that respects and preserves local traditions and customs. It is in this context that the mine is exploited and its spin-offs are shared between the owner (NANA) and the operator (Teck Cominco Alaska Inc.).

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<sup>6</sup> DUHAIME, G., N. Bernard, P. Fréchette, M.A. Maillé, A. Morin & A. Caron.

## 2. Model

### 2.1 Lead agencies

Teck Cominco Alaska Inc. operates the mine and pays royalties for the income it makes to NANA in consideration of the exploitation of the mine. It is one of the region's main employers.

Created 30 years ago, NANA (also called the Maniilaq Association) owns the mine. The mission of this organization is to look after the health and social services of 12 communities in Northwest Alaska, all recognized by federal American authorities, and defend their rights. The organization, which is responsible for more than 6 500 individuals, coordinates, implements and manages community assistance and socio-economic programs, as well as environmental programs with the money from Teck Cominco Alaska Inc. It is also the main employer in the region with approximately 500 employees<sup>7</sup> working in various fields such as health services, social assistance and community services, as well as in the administration of the organization itself.

The government of the state of Alaska passed the *Alaska Native Claims Settlement Act*.

### 2.2 Practice

The agreement gives Teck Cominco Alaska Inc. the right to extract, exploit and market the mine's 85 million tons of minerals<sup>8</sup>. In consideration therefor, NANA collects a growing percentage of royalties which should eventually total 50% of profits made by Teck Cominco Alaska Inc.<sup>9</sup>. This money is used to finance NANA's various activities relating to economic and social development and the improvement of infrastructures in the region, especially with regard to transportation, health and education.

According to Teck Cominco Alaska Inc., the agreement enables Aboriginals to preserve their traditional way of life while having access to modern training that allows them to enter the job market.

### 2.3 Management

Since 1989, NANA has been collecting royalties in the form of annual payments, totalling 4.5% of annual production. This rate of compensation will remain in effect until Cominco has amortized its investments. Thereafter, NANA will collect 25% of the mine's net income; this percentage will increase by 5% every five years until it reaches 50%<sup>10</sup>.

An advisory committee dealing with matters of subsistence was established and financed by NANA. This committee sets standards to prevent mining from interfering with traditional activities such as hunting and fishing. In addition, a special program was put in place to give Aboriginals employment priority at Teck Cominco Alaska Inc. At the same time, an employment committee reporting to NANA was created to hire and train members of the local community so that they are qualified for positions with the mining company.

<sup>7</sup> Maniilaq Association.

<sup>8</sup> According to 2003 estimates.

<sup>9</sup> United Nations Economic and Social Council.

<sup>10</sup> DUHAIME, G., N. Bernard, P. Fréchette, M.A. Maillé, A. Morin & A. Caron.

In addition, a management committee, equally made up of representatives from NANA and Teck Cominco Alaska Inc., is looking after the study and approval of mining activities both in terms of checking the amounts extracted and ensuring respect for the environment. This last element is made possible through controlled extraction processes and by transporting minerals in ways that limit the pollution caused by heavy metals.

## 2.4 Success factors

In light of the documentation consulted, we feel that the following elements are success factors:

- ▶ The equality of power between NANA and Teck Cominco Alaska Inc. in the decision-making process and in applying the provisions of the agreements. In other words, NANA is not considered a dependent beneficiary of Teck Cominco Alaska inc., but rather an owner of the mine that negotiates its interests;
- ▶ The long-term distribution of royalty payments to local communities, which is thought to contribute to the sustainability of this partnership and its local spin-offs;
- ▶ NANA's freedom to manage with regard to the use of funds from royalty payments.

## 3. Outcomes

Based on the information found in the various documents, the following outcomes can be reported:

- ▶ In 1997, the Red Dog Mine had a net income of close to \$140 million, of which \$41 million was paid to NANA;
- ▶ Red Dog has nearly 420 employees, half of whom are either members of NANA or of an Aboriginal community;
- ▶ Between 1989 and 1995, an 80 000 square-foot medical centre was built in the town of Kotzebue. Construction and materials cost close to \$57 million;
- ▶ The improvement and development of the region's roadway infrastructures, in cooperation with the Alaska Industrial Development and Export Authority, particularly on the section linking the extraction site to the port, so as to facilitate the transportation of minerals.

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# **Program to revitalize the old mine in Bitterfeld-Wolfen – Germany**

## **1. Background**

### **1.1 Context**

The Bitterfeld-Wolfen site is located in the Sachsen-Anhalt region, which is approximately 150 km south of Berlin. The main city of this region is Leipzig. With more than 50 000 inhabitants, this area has been an important location for industry, especially for coal extraction and mining, since the early 1900s and particularly between the two World Wars.

These intensive and polluting mining and industrial activities have a considerable impact on the environment and the quality of life of the community. That is why, near the end of the 1980s, the German government deemed it an ecological and environmental risk area.

The information used to prepare this record was taken mainly from the city of Leipzig's Web sites and the UNHABITAT site, a United Nations best practices database.

### **1.2 Situation prior to change**

During close to 90 years of activity:

- ▶ 440 million tonnes of coal were extracted;
- ▶ 1.29 billion tonnes of contaminated soils were removed;
- ▶ 70 hectares of forest were cut down;
- ▶ 6 towns were razed;
- ▶ 1 river was diverted over close to 7 km.

In 1991, with the completion of mining activities and the closing of the mine, which according to city officials in Leipzig was the main revenue-generating activity, close to half the region's inhabitants lost their jobs. This is the why some of the population left the area.

### **1.3 Environment for change**

The reunification of East and West Germany was a driving force behind the implementation of this program. The German government funded several initiatives aimed at the economic development of different regions in Germany.

So as to decentralize the federal government's activities, responsibility for the administration of various programs was delegated to regional authorities in the areas involved. This is how it came to pass that the program to revitalize the Bitterfeld-Wolfen region was placed under the legal and administrative jurisdiction of Sachsen-Anhalt authorities.

## **2. The Model**

### **2.1 Lead agencies**

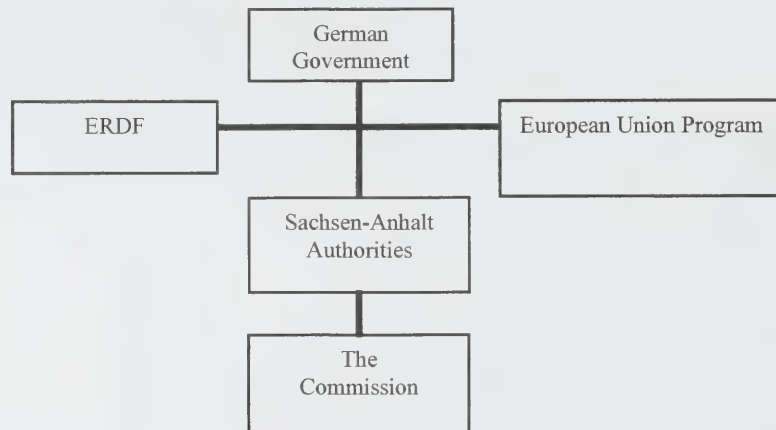
The German government took the initiative to implement this program and is its main contributor.

The European Regional Development Fund (ERDF) was involved in the funding of this program.

The European Union program for the decontamination and stabilization of mining areas contributed to the funding and provided technical support for the program's feasibility study.

Sachsen-Anhalt authorities were responsible for the legal and administrative aspects of the program to revitalize the Bitterfeld-Wolfen region.

In 1997, a commission responsible for implementing and overseeing the program was set up by Sachsen-Anhalt authorities. This commission is made up of landscape architects, planners, artists, politicians and local authorities.



## 2.2 Practice

The practice consists in implementing a revitalisation program that covers the entire region. The purpose of this program is to create a new landscape (visual and socio-economic) in an area that has been marked by over nine decades of mining activities and industrial pollutants.

This program, which involved economists, landscape architects, former miners, artists and people living in the area, took place over a 10-year period (1991-2001).

Its first objective was to ensure that the mining area was rebuilt and developed to make economic revitalization of the region possible by creating new income-generating activities, training young people and improving the community's standard of living while at the same time preserving the environment.

In order to ensure the project's long-term viability, the commission in charge of the program<sup>11</sup> established a charter that includes the following elements:

- ▶ Involve the people of the region in the decision-making and implementation process;
- ▶ Work slowly so as to respect nature's ability to recover and avoid quick actions that could have irreversible implications;
- ▶ Respect the region's characteristics and coordinate interventions with a view to preserving its identity;

<sup>11</sup> See paragraph 2.1.



- Implement this transformation process as a new approach in the relationship between humankind, nature and technology.

The most significant action carried out as part of the program was filling the hole left by the open-pit mining of minerals for 90 years. This was made possible by deviating a river to create an artificial lake where the mine had been.

## 2.3 Management

In 1993, two years after mining was completed, a document containing guidelines and measures to be taken was prepared by Sachsen-Anhalt authorities. It was then presented and discussed in public with all the players involved. In 1995, a master plan to revitalize the landscape was prepared by the planning and landscape office of Ä–koplan, a private firm hired by local authorities. Two years later, the commission responsible for the program, mentioned earlier, was created. This commission fell under the jurisdiction of the Sachsen-Anhalt region.

The commission then divided the area of the former mine into 10 distinct land units. For each unit, the implementation of the program, both with regard to the environment and economic development, must respect the particular context of each unit and try to meet the specific needs that will have been determined. That same year, an international workshop was organized by the same commission to observe trends and emulate similar experiences in other areas of Europe<sup>12</sup>.

According to the Web site containing the best practices database, a competition was organized in 1998 to identify the best ideas and development projects to implement in the region. This project, which was proposed by the commission, received first prize because of its compatibility with the local and federal authorities' long-term vision of sustainable development.

This project dealt with filling the hole of the former open-mine pit with water from the river and creating an artificial lake. On the lakeshore, different facilities have been established for tourist activities and for setting up businesses and workshops. At the same time, campaigns to educate and bring the local population up to standard were carried out. In 1999, the flooding process began. That same year, several associations were created to environmentally and economically revitalize the region. Work related to the program continued into 2001.

## 2.4 Success factors

According to the documents consulted, there appear to be three key factors to the success of those actions carried out, both with regard to the flooding of the old mine and the actions taken concerning economic and environmental revitalization:

- Involving former miners from the beginning of the process right up until implementation;
- Organizing competitions across Europe so as to have as many ideas as possible and be able to choose the best ones for implementation;
- Respecting the environmental aspect and working from a sustainable development viewpoint.

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<sup>12</sup> UNHABITAT.

### 3. Outcomes

According to the officials mentioned above, the program to revitalize the Bitterfeld-Wolfen region had many positive impacts on the area:

- ▶ The creation of approximately 300 jobs between 1999 and 2001, which are held by former miners;
- ▶ The image that people have of the region has changed. It has gone from a completely devastated and deteriorated area to a peaceful area (artificial lake and tourist facilities) that is conducive to investments;
- ▶ In 2000, the region welcomed more than 150 000 visitors, who spent several million dollars in the area.

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# Indigenous Partnership Program – Australia

## 1. Background

### 1.1 Context

The Australian government implemented the Indigenous Partnership Program (IPP) aimed at improving the standard of living of Aboriginals by involving them in the socio-economic life of their country.

The practice developed in this record highlights one of the projects of this program, which was carried out in Queensland, located in North-eastern Australia.

With a surface area of 1 727 200 km<sup>2</sup> and a population of 3 368 850<sup>13</sup>, Queensland, the capital city of which is Brisbane, is the second largest state in the country.

The practice consists of an agreement between the Australian government and Pasminco Century Mine Limited, a subsidiary of Pasminco, which is a holding company made up of several mining companies that exploit different types of minerals, especially zinc.

The information used to prepare this record was obtained mainly from the Web site of Australia's Department of Industry, Tourism and Resources (DITR).

### 1.2 Situation prior to change

Australia has a significant number of Indigenous peoples. In certain Indigenous areas, the mining industry attracts many high profile companies, such as Pasminco.

According to World Vision Australia, a development and humanitarian aid organization, most mining takes place in remote areas where the local community is underdeveloped and does not benefit from the spin-offs of these operations. The communities in these areas suffer from a lack of training and a shortage of other sources of income, with the exception of social aid. Furthermore, the unemployment rate is high in Aboriginal communities.

### 1.3 Environment for change

Those employed by Pasminco Century Mine Limited are mostly from towns far from the mining site. While they are working, miners are lodged and fed by the mining company that hired them.

So as to improve its relations with local communities, Pasminco Century Mine Limited implemented various tools to help create jobs, both directly and indirectly. It offers job placements and has become involved in the region's economic development. However, according to authorities in Queensland, long-term solutions still have to be found to develop the mined lands and ensure their survival, even after mining is completed.

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<sup>13</sup> According to the 1996 Australian census.



## 2. The Model

### 2.1 Lead agencies

The DITR oversees the IPP, ensures that the regulations associated with exploration and development are applied and encourages the efficient use of energy. It controls oil and gas resources and ensures that they are extracted without significant damage to the environment, while at the same time helping find better solutions for maximizing socio-economic spin-offs in those areas where these resources are exploited. Its mission is also to update existing natural resources policies and apply legislation governing natural resource industries in Australia<sup>14</sup>.

Pasminco Century Mine Limited operates the mine and is financially involved in implementing the agreement.

Other organizations are also involved in this agreement:

- ▶ The Gulf Aboriginal Development Corporation (GADC);
- ▶ Century Environment Committee (CEC);
- ▶ Century Employment and Training Committee (CETC);
- ▶ Aboriginal Development Benefits Trust (ADBT).

These four organizations are each made up of a local Aboriginal majority, which acts as a counterbalance to guarantee the communities they serve that the terms established in the agreement between Pasminco Century Mine Limited and the Queensland Government are applied. These organizations also define the responsibilities of each of the local communities. Their roles are further defined in section 2.3.

### 2.2 Practice

The project consists of an agreement — the Gulf Communities Agreement (GCA) — that was negotiated between Pasminco Century Mine Limited, the Queensland Government and three native title groups — the Waanyi, Mingginda and Gkuthaarn. This agreement was signed in May 1997 and came into effect in September 1997. It focuses on three main components:

- ▶ To find employment and training for the local community;
- ▶ To ensure economic development at the local and regional levels;
- ▶ To protect local culture and the environment.

The agreement is seen by all parties as a strategic alliance and a basis for working together to achieve benefits for all parties. This is how the agreement targets the local Aboriginal people, whether they are miners or other members of the community. It attempts to monitor and encourage development and the implementation of individual and joint initiatives, such as the financing of microprojects.

### 2.3 Management

The GADC was created after the CGA was signed to meet the needs of local communities. Its main mission is to represent their interests over the life of the Agreement. The GADC plays a coordination

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<sup>14</sup> Department of Industry, Tourism and Resources.

and communication role between the parties and manages compensation payments<sup>15</sup> to local communities. These payments will total more than \$9.2 million over 20 years (1997 to 2017).

The CEC was established by the Australian DITR to monitor all environmental issues relating to the mining operations, including the review of all environmental regulatory requirements. It also provides advice on environmental programs and strategies. The committee meets every six weeks and has developed a sound understanding of the impact of mining operations on the environment.

The position of Aboriginal Environmental Liaison Officer was created within the CEC. The liaison officer regularly visits local communities and ensures communication and liaison between those communities and the CEC.

The CETC is responsible for monitoring the development and implementation of the Employment and Training Plan, skills auditing, ensuring continued education and establishing a regional infrastructure for communicating with local communities. The CETC manages a \$1.4 million budget, which is granted each year by the mine.

The ADBT also manages funds from Pasminco Century Mine Limited for local development. This organization consists mainly of members of the Aboriginal community and has established a protocol for managing the funds contributed by the mine. The ADBT manages a fund of \$18.5 million over 20 years for local economic development. It can finance up to one third of the cost of microprojects submitted to them and can grant loans for the other two thirds.

## 2.4 Success factors

According to the documents consulted, it appears that the determining factors in the success of this project are that:

- ▶ the stakeholders agreed to involve the local community by hiring local staff for sensitive positions, such as Community Liaison Officers, Community Relation Adviser and Aboriginal Environmental Liaison Officer;
- ▶ emphasis was placed on the need to introduce a monitoring process to ensure the practice's long-term success. This process deals especially with training employees and interns so that they can make the transition to a new way of life, which will have social, family and health impacts.

## 3. Outcomes

According to DITR:

- ▶ The project employed over 450 people from local communities;
- ▶ At least five local businesses, employing 35 people, were created and 11 others are being developed;
- ▶ The local community will enjoy an improved financial and social situation, which will likely reduce conflicts between it and those in charge of the mine as well as government authorities.

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<sup>15</sup> These compensation payments are made in consideration of the use of lands belonging to these communities by Pasminco Century Mine Limited.

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# Installation of Electronic Kiosks in Castilla y León - Spain

## 1. Background

### 1.1 Context

The practice developed in this record is part of the European Territorial Employment Pact, implemented by the European Union in 1998. Since the late 1990s, it has involved eight mining districts in Spain's Castilla y León region.

The Castilla y León region, the capital of which is Valladolid, is located in Northwest Spain. It covers an area of 94 224 km<sup>2</sup> and, in 1996, had 2 508 496 inhabitants, 53% of whom were living in urban areas. In 1997, the active population was estimated at over 969 020, almost 30% of whom held jobs in the industry sector, especially the mining industry as the region has large mineral reserves, particularly in coal and uranium. The unemployment rate was estimated at 20%<sup>16</sup> during this same period.

The information used to prepare this record came mainly from documents published by the European Union.

### 1.2 Situation prior to change

Similar to most mining areas in Spain, the districts of León and Palencia are geographically isolated and have some difficulties communicating and linking up with the rest of the country.

According to the European Union, social infrastructures are inadequate faced with the needs of an increasingly older community, as young people are migrating to major cities to escape the drop in the mining industry's job market.

### 1.3 Environment for change

According to the European Union, in the 1990s, several regions were dealing with high unemployment rates and Spain was no exception. It was suffering from the drop in mining operations, which had employed a large part of the labour force.

The Territorial Employment Pact adopted by the European Union in 1998 was aimed at keeping young people in the regions by proposing a support framework for all retention activities. The Castilla y León region identified a lack of information on employment opportunities as one of the main problems in keeping young people in the area. This finding led to the project to install electronic kiosks aimed especially at young people.

## 2. The model

### 2.1 Lead agencies

The following organizations are involved in the project to install electronic kiosks in the Castilla y León region.

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<sup>16</sup> Assembly of European Regions.

The Junta de Castilla y León<sup>17</sup> [Castilla y León council] is the primary body in charge of the project, through the creation and financing of two commissions:

- ▶ An executive commission in charge of making strategic decisions. It is made up of four representatives from local authorities, four union representatives, four representatives from private companies and four representatives from regional authorities;
- ▶ A technical commission that is responsible for managing and monitoring activities. It is made up of two representatives from each of the organizations that make up the executive commission.

The European Regional Development Fund (ERDF) is part of the European Union and has the mission of ensuring a decrease in regional disparities and equal development of European regions by allocating grants to local players. It is one of the main organizations financing the project.

Several other organizations are involved in this project; however, the documents consulted do not enable us to pinpoint the nature and extent of their involvement in the project. These organizations are:

- ▶ the Regional Association of Mining Municipalities (ARMI);
- ▶ the Confederation of Business Organizations of Castilla y León (CECALE);
- ▶ the Regional Union of Workers' General Trade Union of Castilla y León (U.G.T);
- ▶ the Regional Union of Works Councils of Castilla y León;
- ▶ the Council of Industry, Trade and Tourism — Junta de Castilla y León.

## 2.2 Practice

The practice implemented in this region consists in installing seven multimedia information points in the municipalities of major towns in the mining districts (Bembibre, Vega de Espinareda, Villablino, La Robla, Cistierna, Guardo and Barruelo), in addition to one for the Junta de Castilla y León.

The electronic kiosks make it possible to:

- ▶ provide young people and the unemployed with information on job opportunities and upcoming training and upgrading sessions;
- ▶ communicate the labour needs of existing companies and those wishing to open in the region;
- ▶ publish other information on the various services offered in the region.

According to the Junta of Castilla and León, the main users of these kiosks are:

- ▶ the long-term unemployed or those affected by the conversion of the mining industry;
- ▶ workers in the mining sector with a risk of losing their jobs;
- ▶ young people seeking their first job;
- ▶ women seeking their first job or wishing to return to the job market;
- ▶ persons with disabilities.

While the kiosks are being installed, other actions are being implemented to achieve the objectives<sup>18</sup> of the European Territorial Employment Pact in the region, i.e.:

<sup>17</sup> European Union, "Multimedia Information Points in the Capital Towns of the Mining Districts."

- ▶ Improving infrastructures;
- ▶ Developing training;
- ▶ Improving social infrastructure and promoting activities for seniors and persons with disabilities.

## 2.3 Management

The activities carried out seek to reduce the unemployment level and prevent it from rising by enabling young people (especially the unemployed) to take upgrade training and by creating jobs in companies that have recently been set up.

The total cost of the project (material investment and fixed assets) is estimated at approximately \$126 000. These costs are shared by FEDER and the Junta de Castilla y León, which contributed \$95 000 and \$31 000 respectively.

## 2.4 Success factors

According to a report published in 2001 by the European Union's technical assistance bureau, "Europe Innovation 2000," the following element had a strong influence on the project<sup>19</sup>:

- ▶ A good understanding and a high degree of cooperation by public administration and social and economic agents;
- ▶ The introduction of new information technologies in the target area, leading to skills and abilities that did not previously exist.

## 3. Outcomes

According to local authorities from Castilla y León, implementing the program has had many positive effects on the region:

- ▶ Making public administration more accessible to citizens;
- ▶ Providing inhabitants of the mining basins with information on the content and measures adopted by the Territorial Employment Pact, encouraging them to stay in the region;
- ▶ Providing access to information on existing forms of assistance in the Junta de Castilla y León with regard to employment and training.

We have not included specific information on the post-project unemployment rate. However, the actions carried out in this project were aimed at decreasing this rate by creating 420 jobs in some 20 companies and organizing training sessions for approximately 500 people so as to enable them to enter the job market<sup>20</sup>.

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<sup>19</sup> European Union, Territorial Employment Pacts, State of play.

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# Rio Tinto Sustainable Development Policy - International

## 1. Background

### 1.1 Context

The Rio Tinto Sustainable Development Policy and, more specifically, the project developed in the Salt Lake City area of Utah are presented in this report.

Employing 1400 people, Kennecott Utah Copper (KUC), a subsidiary of Rio Tinto, operates a copper mine in Bingham Canyon, about 45 km southwest of Salt Lake City. The Bingham County Mine is the largest open-pit copper mine in the world. Since it began operations in 1903, it has produced more than 15 million tons of copper<sup>21</sup>.

The KUC, by providing close to 15% of the United States' copper needs, is considered the second largest copper producer in the country. In fact, each year, the KUC produces approximately 300 000 tons of copper cathode, 389 000 ounces of gold, 3 million ounces of silver, 18 million pounds of molybdenum and approximately 1 million tons of sulphuric acid<sup>22</sup>.

According to local authorities, the region's economic activity, with the exception of mining operations, is relatively underdeveloped, especially in South Jordan, the town closest to the mine.

The information used to prepare this record was obtained mainly from the Web sites of Kennecott Utah Copper, Rio Tinto and the Mining Technology magazine.

### 1.2 Situation prior to change

With the decrease in copper reserves at the Bingham mine and the drop in the price of copper over the past few years, mining operations at the mine drew to a close in the early 2000s.

In an effort to be in line with the sustainable development policy of the parent company, Rio Tinto, KUC had to find a project that would enable it to end its mining operations while minimizing, as much as possible, the amount of compensation to be paid to local authorities. Indeed, after more than a century of mining an area covering more than 4 000 km<sup>2</sup>, KUC has had to restore the land.

### 1.3 Environment for change

Rio Tinto is one of the largest mineral extraction and mining companies in the world. It operates in several countries across five continents. In the early 1990s, it launched an internal policy aimed at the local and sustainable development of communities and lands in the countries where it was operating. Thus, Rio Tinto, through various subsidiaries (in this case KUC), operates and finances activities relating to community development, job creation, protection of the environment, human rights, health, etc.

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<sup>21</sup> Mining Technology.

<sup>22</sup> Kennecott Utah Copper.

## 2. The model

### 2.1 Lead agencies

The following organizations are involved in the winding-down project at the Bingham mine.

Kennecott Utah Copper (KUC), which operates the mine and is the project's main donor, took the initiative to create the Kennecott Development Company (KDC).

The Kennecott Development Company (KDC), created in April 2001, is a subsidiary of KUC that deals exclusively with managing the closing of the mine by planning, financing (through funds from KUC), and developing the infrastructures of the new project. KDC operates independently of KUC and Rio Tinto. KDC is also the main point of contact for local authorities.

Local authorities in South Jordan are trying to boost the local economy by increasing the population and attracting new investment. This city is located south of Salt Lake City and has a population of 30 000, 75% of whom are Mormons.

### 2.2 Practice

The KUC project consists in finding viable and sustainable solutions for developing the lands (approximately 16 200 hectares) where mining operations are no longer profitable. The analysis process began with the creation of the KDC in 2001. The most significant project resulting from the creation of the KDC is the construction of a new town adjoining South Jordan. It is called the Sunrise Project and consists in building more than 13 000 residential units with all the socio-economic infrastructures essential to their viability<sup>23</sup>. These new residential units could house over 30 000 inhabitants<sup>24</sup>, which would be double the current population of South Jordan and, consequently, attract new investment (to meet the needs of this new community) that would boost economic activity in the region. It is a comprehensive project involving not only residential and commercial structures, but industrial ones as well.

### 2.3 Management

KDC's main objective is to develop a blueprint for the future locality of Sunrise. This plan must contain guidelines for residential and commercial development, as well as for the protection of the environment. KDC must then manage the planning, financing and construction of infrastructures, in cooperation with authorities from South Jordan and environmental, transportation and economic development consulting firms. Construction work began in 2003.

Based on the documents consulted, the planning of the future locality of Sunrise is based on four principles:

- ▶ Distinct neighbourhoods, each with a variety of housing options and a school. These neighbourhoods will be within a reasonable distance of the town centre where the main basic services will be located and where economic activity will be concentrated (businesses, entertainment, etc.);
- ▶ A park and greenways system so as to give the project an ecological dimension;

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<sup>23</sup> Rio Tinto.

<sup>24</sup> Kennecott land.



- ▶ A coherent transportation system where various means of transport could co-exist (pedestrians, bicycles, cars, etc.);
- ▶ An environment that is able to attract new investors and bring new money to the region, which would help create jobs and boost economic activity.

## 2.4 Success factors

In light of the documents consulted, we believe the key factors to success are:

- ▶ The creation of a full subsidiary organization — the KDC — which was created exclusively to manage the project;
- ▶ The implementation of the project in agreement and cooperation with local authorities from the town of South Jordan.

## 3. Outcomes

Construction work on the locality of Sunrise began at the end of 2003. Consequently, when this record was being prepared, it was impossible to give an overview of the achievements. Nevertheless, this project is considered the largest development project of its kind in Utah and, as such, the project blueprint received an award from the Governor in 2002.

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# THEME 3: ENERGY DEVELOPMENT, HYDROELECTRIC AND PIPELINE SECTOR

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## 1. Definition and context

Oil, natural gas and hydroelectricity are among the world's major sources of energy. The development of these resources, especially natural gas and oil, is generally the job of large corporations that specialize in this field. These companies often invest considerable sums of money to extract these resources. However, given the qualifications generally necessary to work in this field, the communities inhabiting the regions where these resources are developed do not enjoy the benefits of this development. What's more, oil and gas extraction or the installation of hydroelectric infrastructures (dams, hydro plants, power transmission poles) sometimes lead to serious environmental problems.

The practices addressed in this theme provide examples of how energy firms, in cooperation with the local public authorities and international agencies, have put in place mechanisms aimed at improving the quality of life and stimulating economic and social development in the local communities.

## 2. Trends

Research and documentation on the practices presented in this theme have made it possible to identify the following trends:

- ▶ Socio-economic projects and programs consistent with the principles of sustainable development and respect for the environment;
- ▶ Involvement of local communities in putting these programs in place;
- ▶ Frequent participation of international organizations;
- ▶ Major investments in health and education infrastructures in order to ensure the sustainability of the practices, even after the energy firms have packed up and left.

## 3. Presentation of practices

After identifying and briefly analysing several practices related to this theme, the five following practices, having to do with various aspects of the energy sector (pipeline, hydroelectric projects, etc.) were selected:

### West African Gas Project - West Africa

The West African gas project consists in building a pipeline to transport natural gas from Nigeria to Ghana, via the countries of Togo and Benin. Installation of the pipeline, which will allow the gas to be transported more efficiently, is expected to produce energy savings that can in turn be pumped back into the countries involved, especially in the areas of education and infrastructure improvements.

Furthermore, the countries' increased energy capacity should enable them to attract new industries and thus create employment opportunities and enhance the standard of living of a number of communities in the four countries involved.

### **Statoil-International sustainable development policy**

This practice includes an example of projects that can be carried out as part of Statoil's sustainable development policy in Nigeria. In cooperation with an international organization called Pro-Natura, Statoil has undertaken actions since 1997 aimed mainly at:

Reducing poverty and improving the quality of life of the population by generating new revenues;

Creating health services and improving the education system in order to develop local human resources;

Protecting the environment and natural resources;

Putting in place the necessary infrastructures to support the regions' social and economic development.

### **Texaco-International code of conduct**

The code of conduct developed by Texaco has led to a number of projects. A partnership between the Angolan authorities and Chevron Texaco, in cooperation with various international organizations, is one such project.

Between 1975 and 2003, Angola was ravaged by civil war. With a view to improving the situation of the Angolan population, this partnership seeks to develop local small and medium sized businesses and to take action in the field of education.

### **Total-International local development program**

Total has created a local development program, one of whose projects focuses on a socio-economic support program in Myanmar, where the company is developing a gas deposit. The program began in 1995 and deals mainly with health, education and regional economic development. It also tries to improve the living conditions of inhabitants of the region so that they can become economically self-sufficient.

### **Anatolian development project in south-eastern Turkey**

Launched in the early 1980s, the GAP project seeks to stimulate development throughout South-eastern Turkey (Anatolian region) through the construction of 22 dams, 19 of which will be hooked up to hydro plants.

The main objective is to ensure that the construction of these infrastructures increases usable farm areas and invigorates the regional economy, which will make it possible to:

Reduce income disparities between Eastern and Western Turkey;

Create new employment opportunities;

Integrate the local population into the national socio-economic mainstream;

Improve and increase agricultural productivity;

Diversify activities and improve living conditions in rural areas;

Stem migration to large cities;

Integrate women into the economy and society.



# West African Gas Project – West Africa

## 1. Background

### 1.1 Context

The West African nations of Nigeria, Ghana, Togo and Benin are putting in place a pipeline project to transport gas from Nigeria to Ghana. The pipeline will also supply Nigerian gas to Togo and Benin, two countries that the pipeline will pass through. This project, called the West African Gas Pipeline - WAGP, will see the construction of a 1033km pipeline. According to the governments of the four States, the pipeline project will have positive spin-offs, particularly when it comes to jobs and infrastructure development in the communities and countries that it runs through. The total cost of the pipeline construction project is about \$650 million. It is expected to be completed by 2005.

Most of the information that we used to prepare this record comes from the Web site of the World Energy Council and of the Energy Information Administration - EIA.

### 1.2 Situation prior to change

Currently, the principal source of energy in these countries, particularly in the case of Togo and Benin, is the hydro plants connected to the Akosombo dam in Ghana and the Nangbto dam in Togo. However, the electricity supplied by these two dams falls short of the energy demand in Togo and Benin, which in 2002 was estimated at 521 Gigawatts/hour (GWH) for the former and 533 GWH for the latter. In 2010, this demand is expected to reach 983 GWH and 1126 GWH respectively.

This energy shortfall has significantly slowed economic and industrial development in these countries. According to the EIA, many companies have refused to set up operations in these countries precisely on account of this shortfall. This situation is impacting negatively on the local populace. For example, the EIA reports that there are not enough jobs in relation to the number of available workers. Furthermore, the region lacks health and education infrastructures.

### 1.3 Environment for change

In 1982, the Economic Community of West African States, or ECWAS, proposed to its member States, including the above-mentioned countries, a project to build a pipeline crossing several West African countries in order to facilitate the transport of gas between these countries. According to ECWAS, this pipeline would address these countries' energy deficit and at the same time encourage new companies to set up shop there, thereby breathing new life into the regional economy.

In 1991, ECOWAS proposed a regional energy distribution plan to the governments of the four States. A feasibility study on supplying these countries, mainly Ghana, with Nigerian gas was carried out in 1992.

## 2. The model

### 2.1 Lead agencies

ECOWAS was the first to broach the idea of building a pipeline in West Africa. It also was responsible for the technical and financial feasibility studies for the WAGP project, most of which will run underwater.

The governments of the four countries, Togo, Nigeria, Benin and Ghana, signed an agreement in 1995 to go ahead with the project.

Chevron Texaco is an American company that specializes in gas and petroleum development and extraction. It was given the job of building and managing the pipeline. This mandate is the product of an agreement among four government corporations representing the four countries, namely the Société nationale nigériane de pétrole (SNNP), the Société nationale ghanéenne de pétrole (SNGP), the Société béninoise de gaz (SOBEGAZ) and the Société togolaise de gaz (SOTOGAZ).

**Table**  
**The various project donors by**  
**proportion of respective involvement**

Donor	% involvement
Chevron Texaco	36.7%
SNNP	25%,
Shell*	18%
Ghanaian government	16%
SOTOGAZ	2%
SOBEGAZ	2%

\*Other oil company, whose involvement is not clearly defined in the documents consulted.

The documents consulted did not shed further light on the nature and scope of the investments linked to the energy savings.

### 2.2 Practice

According to the EIA, setting up the pipeline infrastructures should free up some energy savings, thanks in part to a more cost-effective means of transport (i.e. the pipeline) and to the replacement of oil by gas. According to project officials, substituting gas for oil will reduce fuel costs, since oil is more expensive and is consumed more rapidly than gas. In the energy budget, these savings should be invested in the countries involved. The increase in energy capacity should kick-start the regional economy by attracting industry, which should in turn create employment opportunities. This job creation will help increase the standard of living of scores of families in the four countries in question, particularly Togo and Benin<sup>25</sup>.

<sup>25</sup> Inter Press News Agency.

## 2.3 Management

In June 2002, a gas supply agreement was ratified by the governments of the four countries. This agreement sets the terms and conditions for the transport and distribution of the gas. In February 2003, the four States signed an agreement to officially approve construction of the pipeline, which began early in 2004.

This 20-year agreement provides for a legal and fiscal structure for implementing the project. This structure will, among other things, ensure compliance with the clauses of the contract by the signatories (the four countries and the private companies).

## 2.4 Success factors

Based on the documents consulted, the following elements might constitute success factors for the project:

Use of ecologically sound methods in order to minimize the negative impacts on the environment. These gas extraction and transport methods are designed to limit leaks that could harm the environment surrounding the pipeline;

Diversification of the project stakeholders and monitors should help prevent non-compliance with the signed agreements;

Investments of over \$2 billion for construction, energy equipment and the establishment of new industrial enterprises should ensure project sustainability and thus generate a lasting benefit for the local communities.

## 3. Outcomes

Project officials anticipate the following outcomes.

The creation of 20 000 direct jobs and between 30 000 and 60 000 indirect jobs in the industries and activities relating to gas development. These jobs will be created during the pipeline construction phase and ensuing years.

An energy savings of over \$650 million will be realized over a 20-year period.

An increase in energy capacity. This will breathe new life into the industrial sector throughout the region.

A billion-dollar investment to build the pipeline and acquire necessary equipment. An additional \$800 million will be invested to help establish new businesses in the industrial sector.

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# Statoil Sustainable Development Policy – International

## 1. Background

### 1.1 Context

Statoil is a company that specializes in oil and gas exploration. Headquartered in Norway, it also operates in 28 other countries and has a 19,326-strong workforce.

In the various countries where it operates and in partnership with private and public organizations, Statoil engages in sustainable development activities and co-funds social initiatives. These actions seek to improve the living conditions of the local populations and to project a positive image of the company.

The practices promoted and financed by Statoil involve such things as human rights, health, education and job creation.

Statoil operates in partnership with international organizations and NGOs possessing expertise in economic and social development. In this section, we will look at examples of economic and social development activities undertaken in Nigeria.

In Nigeria, Statoil is cooperating with Pro-Natura to help develop a local community (Akassa) in the Niger Delta, more specifically in the State of Bayelsa, which produces 40% of Nigeria's oil. The communities in this State, and in particular the district of Brass, are among Nigeria's poorest.

The information we used for this record comes from Statoil's and Pro-Natura's Web sites.

### 1.2 Situation prior to change

Known for its abundant oil reserves, the Niger Delta is an underdeveloped region. The people living there, mainly fishermen, do not enjoy the benefits of oil development in their region. This populace, the Akassas, numbers about 30 000 inhabitants scattered in 18 villages.

This situation of marginalization and poverty seems to be the source of numerous conflicts between, on the one side, the Akassas and, on the other, the Nigerian government and the oil companies operating in the region.

### 1.3 Environment for change

Despite the region's oil riches, no development plan was in place prior to 1997 to improve the standard of living of the local populace and to stimulate the regional economy.

However, since 1997, Pro-Natura, an international organization active on the environmental and social front, has undertaken economic and social development actions, in cooperation with private enterprise and with the Nigerian government, aimed at helping the region's villages. It is against this backdrop that the practice we will be examining in this record fits in.

## 2. The model

### 2.1 Lead agencies

Statoil is drilling oil wells in the Niger Delta and financing part of the Akassa development program (around \$8 million in 2003).

Pro-Natura is an international organization active on the economic and social development front as well as in the field of environmental protection. It supervises various projects and coordinates activities between donor organizations and the local communities. It also provides coaching and technical support for these communities.

British Petroleum (BP), another oil company operating in Nigeria, is also financing part of the program<sup>26</sup>.

The Nigerian government has also participated in the development program by making available to Pro-Natura civil servants and university managers for purposes of cooperation in supervising the implementation of the program by the local populace.

### 2.2 Practice

The development program, financed by Statoil and BP and coordinated by Pro-Natura, began in 1997. The task of implementing the program was given to the Akassas themselves so that they would eventually be the main people running it and to avoid any type of conflicts between them and the foreign stakeholders, whose intervention might be unfavourably perceived.

The objectives cited by program officials are as follows:

- Generate new revenues to reduce poverty and improve the quality of life of the population;
- Create health and education services as well as a learning network in order to develop local human resources;
- Protect natural resources by encouraging that they be used sustainably and responsibly;
- Support the regions socio-economic development by putting in place the necessary infrastructures.

### 2.3 Management

The program implementation per se<sup>27</sup> was preceded by an immersion phase carried out by a multidisciplinary team composed mainly of representatives of Pro-Natura and Nigerian authorities.

The aim of this phase was to co-inhabit with residents of the region in order to clearly define the program approaches based on the real needs of these populations.

Thus, the Akassas inhabitants were subdivided by this team into several small groups representing the region's different villages. Each of these groups submitted a list of projects that

<sup>26</sup> The amount of BP's contribution was not mentioned in the documents consulted.

<sup>27</sup> The program was carried out between 1997 and 2003. According to the documents consulted, Statoil invested about \$8 million in 2003 alone.



could improve their economic and social situation. Next, the best of these projects were placed into categories, and the Akassa Community Development Plan was drawn up.

Implementation of this plan began in 1998, with action on the following three fronts:

Creation of a savings mutual fund and establishment of microcredits

Organizations called Ogbos were created. They generate community savings. In other words, they bring together groups of women, fishermen, snail gatherers and others and help them save. The money thus amassed is placed in a common fund and loaned out to help launch new business, farming or fishing activities. Once the loans have been repaid, the members can, in turn, begin to save within the Ogbos.

Health and education

Several health centres were built and equipment was purchased for them. In addition, health care assistants drawn from the local populace were trained by physicians and community health committees.

Environmental protection and the use of natural resources

A forestry management plan was prepared. At the same time, activities aimed at raising awareness among the Akassas communities about the need to preserve the environment and to use natural resources in a rational, sustainable manner were undertaken.

In addition, large-meshed nets were distributed to the fishermen in an effort to facilitate regeneration of marine species. Use of this type of net saves small fish and crustaceans.

## 2.4 Success factors

According to those in charge of the program<sup>28</sup>, the following elements have been key factors in the success of this practice:

The preliminary immersion phase facilitated the development of the Community Development Plan. The plan was prepared with the input of the various Akassas groups so that it would respond to the needs of this community;

The practice was based on the local populations' active involvement in identifying needs, making decisions and implementing the program, which helped avoid conflicts between the communities and foreign stakeholders, many of whom were seen as exploiting natural resources and as being insensitive to the interests of the local populace.

## 3. Outcomes

According to those responsible for the program, between 1997 and 2003 the following actions were taken:

Creation of about 20 traditional organizations (Ogbos);

Creation of about 20 local health centres;

Renovation and purchase of equipment for three regional medical centres;

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<sup>28</sup> Statoil, Pro-Natura and the Nigerian authorities.

Start-up, thanks to financial assistance (mainly from Statoil and BP) and the funds amassed in the Ogbos, of several dozen small businesses, farm enterprises and fishing businesses;  
 Training activities for program managers from other regions of the Niger Delta, in order to extend the program to those areas;  
 Creation of several training and education centres.

In 2003, Statoil earned pre-tax and -interest income of \$8.42 billion. These revenues were from its activities in the 28 countries in which it operates<sup>29</sup>. During the same year, Statoil paid \$5.24 billion in taxes and interest. Its net profit for 2003 was thus \$3.18 billion<sup>30</sup>. It should also be pointed out that in 2003, Statoil financed the program in Nigeria to the tune of \$8 million.

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<sup>29</sup> However, we do not have any information on Statoil's operating revenues in Nigeria.

<sup>30</sup> Statoil, Statoil Web site.

# Texaco's Code of Conduct -- International

## 1. Background

### 1.1 Context

Chevron Texaco is one of the world's largest oil companies. It operates several oil fields in a number of countries.

Texaco has put in place an international code of conduct in order to enhance its brand image and help the communities it does business with benefit from the spin-offs generated by the energy resources it exploits, with a view to improving their quality of life.

This international code of conduct mainly takes the form of socio-economic programs that the company institutes in the various countries where it operates. These programs, generally geared to environmental protection, education, health and infrastructure development, are established in partnership with the authorities of the countries or regions involved and in cooperation with NGOs.

The following record looks at how Texaco's code of conduct has been implemented in Angola.

This record was compiled on the basis of information obtained from the Web sites of Chevron Texaco, the United States Agency for International Development (USAID), the *Direction de la documentation française* and the Food and Agriculture Organization of the United Nations (FAO).

### 1.2 Situation prior to change

Located in East Africa, Angola has several hundred kilometres of oil-rich coastline, which is why the country is considered to be one of Africa's largest oil producers<sup>31</sup>.

Between 1975 and 2002, however, the country was racked by a civil war that pitted government forces against rebels belonging to the *Union nationale pour l'indépendance totale de l'Angola* (UNITA). This conflict ravaged and destroyed all oil production infrastructures, as well as killing or impoverishing, according to the FAO, thousands of persons. These people were left without food, not to mention health and education services.

### 1.3 Environment for change

In 2002, Chevron Texaco, USAID, the United Nations Development Program (UNDP) and Angolan authorities reached an agreement aimed at stimulating sustainable investment in the country, particularly in the regions most affected by civil war. The focus of the investment is education, training and small business development.

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<sup>31</sup> La documentation française.



## 2. The model

### 2.1 Lead agencies

Chevron Texaco operates a number of oil wells in Angola and is earmarking part of the proceeds for the country's economic and social development.

USAID is funding some of the projects in Angola and taking actions in the area of economic development and education, while supplying technical and financial assistance.

The UNDP and Angolan authorities are also taking part in these actions<sup>32</sup>.

These partners decided to invest a total of over \$65 million in the project:

Texaco and USAID have spent \$26 million on developing small businesses;

Texaco and other organizations have spent \$478 000 on education.

This is the only financial information available from the documents consulted.

### 2.2 Practice

The Angola Partnership Initiative (API) is an agreement linking Chevron Texaco, the Angolan authorities, USAID and UNDP. These organizations decided to invest upwards of \$65 million in an effort to stimulate and develop small and medium sized local businesses and to take action on the education front.

The Initiative established two public/private partnerships:

The Enterprise Development Alliance;

The Angola Enterprise Fund.

Through the Enterprise Development Alliance, Texaco and USAID contributed over \$26 million between 2002 and 2004 in technical and financial assistance for the development of small businesses. In addition, the Alliance is supporting and encouraging rural development, particularly in the farm sector. The financial assistance by Texaco and USAID will continue until 2007.

As for the Angola Enterprise Fund, it is providing technical training and creating employment opportunities in an effort to help Angola recover from the civil war that had ravaged the country for several years.

### 2.3 Management

In the area of rural development, Texaco reports that the efforts of the organizations involved in the API are geared mainly to increasing agricultural production in order to combat famine and improve the quality of life of over 160 000 rural families by increasing their income. Similarly, efforts are being made to create over 200 farmer associations in order to better identify and meet their needs.

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<sup>32</sup> However, the exact nature of their involvement is not clearly defined in the documents consulted.

Several NGOs are involved in this initiative, providing technical support for the associations (e.g. information tours to explain new farming methods) in the areas of land preparation, rural infrastructure development, crop diversification and harvest storage.

To improve the education system, Texaco committed approximately \$330 000 to the Discovery Channel Global Education Fund (DCGEF) to renovate and build 25 to 30 schools and learning centres that will accommodate some 30 000 students. These schools will receive satellite-linked video equipment, together with appropriate interactive educational content. To complete the implementation of this initiative, the DCGEF also received \$145 000 from other donors.

The API is also considering other proposals, such as the project to create the Enterprise Bank Angola, specifically designed as a source for small-business loans in the farming sector. This micro-credit bank would loan these NGOs amounts ranging from \$130 to \$6 5000. The bank would hire and train local credit officers.

Other projects aimed at creating new associations that would focus on distance learning in remote areas are under development.

## 2.4 Success factors

Based on the information gathered, the following elements constitute factors for the success of this practice:

Creation, as part of the API, of two independent organizations (the Enterprise Development Alliance and the Angola Enterprise Fund) active on a number of different fronts: education, employment, etc.;

Gearing the actions to the rural communities inhabited by much of the populace. These communities are generally less well off than the cities.

## 3. Outcomes

Since the actions taken in connection with the API remain ongoing, no assessment of the outcomes has been compiled.

Chevron Texaco's net revenues during the 2003 fiscal year totalled some \$9.57 billion. We do not have precise data on its operating revenues in Angola. However, Chevron Texaco is extracting about 526 000 barrels of oil a day, amounting to operating revenues of between \$24,196,000 and \$27,352,000 a day<sup>33</sup>. As mentioned earlier, approximately \$65 million has been invested in the various projects carried out in Angola.

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<sup>33</sup> These revenue calculations are based on barrel prices ranging from \$46 to \$52.

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# Total's Local Development Program – International

## 1. Background

### 1.1 Context

Total is the fourth largest oil and gas producer in the world. It has launched a local development program in several of the countries in which it operates. In addition to projecting a positive image of the company and its operations, this program seeks to improve the quality of life of the local communities with which the company is in contact and to try and avoid any type of potential conflict between the company and the population that could arise from the gulf that exists between the company's wealth and the generally precarious situation of the local population.

According to the documentation consulted, for the year 2003 over \$125 million was committed by Total and its subsidiaries as part of the local development program and its 2000 or so initiatives. Approximately 75% of these expenditures were earmarked for initiatives on behalf of local communities in non-member countries of the OECD. The remaining 25% was spent on projects in OECD member countries.

Actions were taken in the fields of health, education, employment and the environment in such countries as Tunisia, the U.S., Bolivia, Myanmar, France and Argentina. To illustrate the local development program implemented by Total, we will take a look at what is happening in Myanmar.

In Myanmar, Total is developing the Yadana gas field in the Andaman Sea, east of Thailand. This reserve, with an expected field life of 30 years, contains roughly 150 billion m<sup>3</sup> of gas. Once extracted, the gas is transported via pipeline to the border of Thailand. Thailand, and in particular the Bangkok region, consumes about 90% of the gas from the Yadana field<sup>34</sup>.

Most of the information used for this record comes from the following Web sites: Total, Total in Myanmar and the Collaborative for Development Action (CDA).

### 1.2 Situation prior to change

As of 2002, the Yadana region that the pipeline runs through had a population of some 43 000 inhabitants<sup>35</sup>. It is made up of a few fishing and farming (rice and cattle) villages. This region is cut off from the rest of the country, since there are no paved roads linking it to major centres such as Rangoon. As for the dirt roads, they are washed away every year by the monsoon.

According to Total, the communities populating this region are underprivileged because they do not have access to health and education services and have only limited employment opportunities.

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<sup>34</sup> Total's Web site for Myanmar.

<sup>35</sup> Ibid.

## 1.3 Environment for change

Since the 1990s, Myanmar has been racked by civil war. The population, and in particular the communities outside the major cities, are in a precarious situation. That said, the Yadana region has one of the largest gas reserves in the world<sup>36</sup>.

## 2. The model

### 2.1 Lead agencies

Total is developing the gas field and financing the entire socio-economic program undertaken in the region.

The Burmese authorities ensure coordination between Total and the local communities. The CDA is an American organization specializing in issues relating to development aid for war-embattled countries. The CDA put in place a program called the Corporate Engagement Project, aimed at assisting multinationals and informing them about the impact of their activities on regions experiencing conflict or war.

Other organizations, such as NGOs and humanitarian groups, are also involved in the project, mainly in the fields of health and education.

Implementation of the program was delegated to local committees of physicians, veterinarians, agronomists, etc.<sup>37</sup>.

### 2.2 Practice

According to the documents consulted, Total's Burmese project involves the implementation of a socio-economic program in the region that the Yadana pipeline runs through. The program began in 1995, shortly before work began on developing the gas field, and is active on three main fronts: health, education and regional economic development.

Originally, the program was aimed specifically at the inhabitants of 13 villages surrounding the pipeline. In 2001, 10 additional villages were added to the list of program beneficiaries, with a total population of 43 000 inhabitants. The program's main objective is a lasting improvement in the inhabitants' living conditions so that by the end of the program, they can become economically self-sufficient. The program includes support for orphanages, for a project to combat blindness, for hospitals and for a seniors' residence.

Program implementation was entrusted to Burmese nationals in order to avoid any type of conflict with the local communities.

### 2.3 Management

In order to make better use of the available funds<sup>38</sup>, most of which come from Total, committees made up of physicians, veterinarians and agronomists living in the target regions were created and mandated by the local authorities and Total officials to implement the program.

<sup>36</sup> According to Total officials in Myanmar.

<sup>37</sup> The Collaborative for Development Action.

<sup>38</sup> Since the project began, some \$13.5 million has been invested in the Yadana region.

These committees identified the specific needs of each village and put in place projects aimed at meeting these needs. For example, a system providing free access to health care was introduced, schools were built and training/upgrading sessions were given to local teachers.

In addition, the program seeks to invigorate the economy. In this regard, program officials have created a system of microcredits in order to promote initiatives on the part of individuals. At the same time, they have offered technical and financial assistance for persons wishing to start up their own business. According to project managers, these initiatives should reduce unemployment in the region.

## 2.4 Success factors

According to the program's managers<sup>39</sup>, two factors have been key in the success of this practice:

Two studies explaining the region's socio-economic and cultural characteristics and identifying the needs of the local communities. The first was carried out by a private firm and the second by the History Department of the University of Yangon in Myanmar;

The involvement of the region's inhabitants in implementing the program through the creation of local committees to manage the funds allocated for the needs of the target villages.

## 3. Outcomes

Between 1995 and 2001, some \$13.5 million was spent as part of the socio-economic program, which continues to this day. This funding made it possible to:

- Build and renovate eight dispensaries, a hospital, 50-odd schools, roads, bridges, etc.;
- Create 250 new hog farm projects and build 250 poultry houses;
- Support and encourage fishing and the development of small businesses;
- Put in place a two-part agricultural development program, featuring an economic component (growing rice, vegetables, cashew nuts, palm oil trees, etc.) and a community component called vegetable gardens aimed at the poorest communities.

In 2002, approximately 17.5 million cubic metres of natural gas per day were extracted in Myanmar<sup>40</sup>, of which 31% was extracted by Total. Total's net income in 2003 was nearly \$11.4 billion<sup>41</sup>.

According to the documentation consulted, in 2003 upwards of 1200 farmers took advantage of the program.

Lastly, it should be pointed out that according to Total, the Yadana gas field employs over 800 people, 95% of whom are Burmese nationals. This job creation has increased the purchasing power of a number of families, breathing new life into the local economy.

## References

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<sup>39</sup> Total and Burmese authorities.

<sup>40</sup> Average for 2002.

<sup>41</sup> Total, 2003 annual report.



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# **Southeast Anatolia Development Project – Turkey**

## **1. Background**

### **1.1 Context**

The Gneydogu Anadolu Projesi (GAP) is a development project involving the hydroelectric infrastructures of the Anatolian region, located in Southeastern Turkey. The project, which began in the 1980s, continues to be implemented. It consists, among other things, in building 22 dams, 19 of which will be hooked up to power stations. The project involves nine provinces spread over 75 358Km<sup>2</sup>, i.e. about 9.7% of Turkey's total size.

According to the 2000 census, the regions affected by the project had a combined population of approximately 6 604 000, or nearly 9% of Turkey's total population, with 63% living in urban centres versus 37% in rural areas.

The information used to prepare this record comes mainly from the Web site of the GAP Regional Development Administration.

### **1.2 Situation prior to change**

According to the GAP Regional Development Administration (RDA), during the 1970s there were considerable disparities between Eastern and Western Turkey when it came to standard of living and economic development (Eastern Turkey being poorer). In the region of Anatolia (Southeast Turkey), the farming, industrial and other economic sectors were weak. As a result, this region saw its population migrate in droves to major urban centres in Turkey and Europe. Thus, the proportion of the region's urban population increased from 50% to 63% between 1990 and 2000.

### **1.3 Environment for change**

Turkey is located in Europe and Asia. Wishing to belong to the European Union, the country has been trying for several decades to narrow the gap separating it from other European countries by making its economy more dynamic, improving its transportation, health and education infrastructures and increasing its citizens' income.

With that in mind, in the 1980s Turkey launched a series of large-scale projects, including the GAP.

## **2. The model**

### **2.1 Lead agencies**

The GAP is run by two Turkish agencies.

The GAP RDA was created in 1989 and mandated by the Turk Prime Minister to oversee the management, implementation and coordination of the project for a period of 15 years. In addition, this Ankara-based agency looks after technical matters regarding project execution and the project's impact on infrastructures, agriculture and energy. The RDA is also in charge of improving the level of education of the populations residing in the region.

The GAP Higher Council is chaired by the country's prime minister and made up of, among others, the Minister of State responsible for the GAP, the Minister in charge of State Planning Organization and the Minister of Public Works. This Higher Council is responsible for the GAP's decision making and overall policies. It meets twice a month and during its work sessions, it can invite other ministers to sound them out on questions coming under their respective jurisdictions. Since 2002, the Minister of Agricultural and Rural Affairs has sat on the GAP Higher Council.

## 2.2 Practice

The GAP project has set out to build 22 dams, 19 of which will be connected to power stations. Beyond its energy dimension, the project, given the territory over which it extends, seeks to stimulate the development of all of Southeastern Turkey. Thus, it strives to improve the living conditions of the regional population through a series of moves, including an increase in usable farm area and investments in health and education. That is how the project is working to create a new economic dynamic in the Southeastern region of Turkey.

The main objectives of the project, as set out by the GAP Higher Council and the GAP Regional Development Administration, are as follows:

Overall objectives:

- To reduce income disparities between East and West;
- To create new employment opportunities;
- To integrate the local populace into Turkey's socio-economic mainstream.

Agricultural objectives:

- To improve and increase agricultural productivity;
- To educate farmers on how to make agrarian structures more dynamic;
- To diversify activities and improve rural living conditions;
- To curb migration to large urban centres.

Social objectives:

- To integrate women into Turkey's economy and society;
- To control and direct population growth.

## 2.3 Management

According to the documentation consulted, the total cost of implementing the project over a 75,000km<sup>2</sup> swath of Turkey is estimated at \$20 billion. Once construction of the 22 dams and other infrastructures has been completed, 1 800 000 hectares of land will be irrigated, and energy production will reach nearly 27 billion KW/h.

To date, the GAP has not been completed. According to the project's managers, the work done and the decisions made to date sought to increase the income level and standard of living in the region through investments in industry, transportation, tourism, telecommunications, health and education.



Turkish contractors were given the job of building the dams and power stations. Most of the financing<sup>42</sup> has come from within Turkey. As at 1999, the government had spent over \$18 billion on the construction of the dams and power stations. To obtain financial assistance for the project, Turkey has called on various donors, including USA Exim Bank, Suisse Commercial, the European Investment Bank and the World Bank. During the period from 1999 to 2000, GAP-related investments accounted for nearly 7.3% of total investments in Turkey.

Table<sup>43</sup>

**Breakdown of investments in the various economic and social sectors affected by the GAP between its launch date and 2001**

Economic sectors	Anticipated investment (billions of \$)	Amount invested (billions of \$)	% of investments made
Agriculture	6.197	1.041	16.8
Manufacturing sector	0.915	0.371	40.6
Energy	6.584	5.183	78.7
Transport and communication	4.533	1.526	33.7
Tourism	0.034	0.008	25.1
<b>Total</b>	<b>18.739</b>	<b>8.594</b>	<b>46</b>

Social sectors			
Housing	0.198	0.069	35.2
Education and health	0.543	0.461	85
Other public services	0.995	0.711	71.4
<b>Total</b>	<b>1.737</b>	<b>1.245</b>	<b>71.7</b>

<b>Grand Total</b>	<b>20.476</b>	<b>9.855</b>	<b>48.1</b>
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## 2.4 Success factors

Based on the documents consulted, the following elements seem to constitute the success factors for the project:

Implementing the project from a long-term perspective to ensure sustainability;

Financing the project with internal resources, to the tune of 75% of the project cost, to avoid debt that could slow down the economy;

Creating a full-fledged organization to manage and implement the project, in order to avoid multiple and contradictory decision-making.

<sup>42</sup> 75% of the project funding comes from internal resources (roughly \$15 billion), with the other 25% (about \$5 billion) coming from foreign credits (2002 figures).

<sup>43</sup> GAP.

### 3. Outcomes

According to the documents consulted, the following picture has emerged (but since the project is still underway, final figures are not yet available):

Creation of an irrigation area measuring 1 800 000 ha;

Increase in the energy capacity of Southeastern Turkey (73% of energy objectives have been met);

Construction of roads, highways and airports, and extension of the railway network (nearly 3000 km of roads and highways have been built or refurbished);

Development of five industrial zones comprising 543 establishments and 18 small-business parks comprising 5514 workshops (all together, some 77 000 jobs have been created); 19 other small-business parks are under construction, with a planned capacity of 4527 workshops;

Redevelopment of seven aerodromes, in particular the Urfa aerodrome, which will become Turkey's largest freight airport;

Construction of and equipment purchases for 22 multi-use social centres that have benefited approximately 29 000 women.

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# THEME 4: FOREST SECTOR

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## 1. Definition and context

For many countries, the environment is a major concern. The current stewardship of forest resources is being questioned, but so too are the rights of future generations to benefit as well from an abundance of resources. Proposed by the Brundtland Commission, the concept of sustainable development involves reassessing the future and establishing new practices in light of current development<sup>44</sup>.

The forestry theme refers mainly to the manner in which forests are managed from a sustainable development perspective. In the practices examined here, everything is done to optimize resources and raise the standard of living of the communities living near the forests, while at the same time preserving these forests for future generations. This theme will also look at the actors involved in forestry management, the various types of partnerships and, last, the quality of life of communities that make their living off the forest.

## 2. Trends

An analysis of the new forestry management methods has identified certain trends that seem increasingly integrated into sustainable forestry development. These include:

- Local population's involvement in management;
- Establishment of partnerships;
- Better training for forestry workers;
- More restrictive regulations on private forests in order to standardize practices.

## 3. Presentation of practices

Five practices were identified with regard to the management and sustainable development of forests. Each practice has to do with a different issue (fire, poverty, private forests, etc.):

### **Bulgarian forest development project- Bulgaria**

Following numerous forest fires and on account of the poverty experienced by the Bulgarian people, the Bulgarian government, in partnership with the World Bank, launched the Forest Development Project. The aim of the project is to adapt forestry management to new market realities, to adopt tools for the sustainable management of forests and to do a better job tracking both private and public management practices. A national strategy and policy should lay the foundation for the sound development of Bulgaria's forestry sector.

The objective of the project is to restructure the current forestry management methodology. In that vein, a new business centre should be created. Reforestation and biodiversity preservation activities are also planned.

### **Joint Forest Management project – India**

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<sup>44</sup> GUEVARA, Ruben



Through village forestry councils, the Joint Forest Management Project undertakes in each participating village a series of local initiatives aimed at bringing about development that meets the economic and social conditions of the region. Each village council administers a fund created to finance various initiatives, the aim being to enhance the quality of life of the village inhabitants. A portion of the revenues from logging operations is earmarked for the fund.

### **Inhabited forests project - Norway**

This project seeks to improve the management of forests over the long term. This approach is based mainly on establishing quality standards that can be used to certify forests. These standards tend to enhance the country's position in the markets and foster sustainable management.

Consultations and research were carried out for three years, culminating in the adoption of six general criteria, 23 quality standards and 95 performance indicators.

### **Gassinski Model Forest Association - Russia**

The Association comprises various stakeholders interested in the sustainable management of forests. In order to maximize the socio-economic benefits of forestry activities for local communities, the Association would like to protect the forest and integrate natural resources into an improved management system.

Efforts are also being made to provide technical assistance in the fields of activity planning, financial management, human resource management and training. The Association is active on six fronts, including value added wood processing and tourism development in the region.

### **Code of Practice - Tasmania**

To ensure uniform quality standards throughout Tasmania, the government put in place, in cooperation with private forest owners, a Forestry Code of Practice that:

- Specifies the planning and conduct of forest operations;
- Provides for elements relating to the construction of roads crossing through the forests;
- Sets out guidelines for wildlife and flora conservation.

Private owners have agreed to conform to the Code. In return, the Code recognizes that they have certain rights, as owners, in addition to ensuring that their investments are secure. The Code is the product of negotiations between the government and the private sector on a series of rules agreed to by both parties.

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# Bulgarian Forest Development Project – Bulgaria

## 1. Background

### 1.1 Context

Situated in Central Europe, Bulgaria has a population of eight million inhabitants. According to 2002 World Bank data:

Forest cover one third of Bulgaria, i.e. 2.32 million hectares:

86% of these forests are owned by the State;

8% are owned by private interests;

5% are owned by municipalities;

1% are owned by schools, religious groups or cooperatives;

80% of Bulgaria's forests are located in mountainous areas;

35 000 jobs are held by forestry and wood industry workers.

The forest plays an important role in Bulgaria's economy, in that it creates jobs, attracts tourists and is a site for recreational activities. Bulgaria's climate is fairly uncommon, as it comprises three micro-climates: continental climate, Eurasian Steppe and Mediterranean climate. This mixture leads to major variations in temperature.

The plan to develop a National Forest Policy and Strategy (NFPS) was ratified by the legislative assembly in November 2002 and the policy was to be adopted in May 2004. This process gave rise to the Bulgaria Forest Development Project in 2002, which is due to continue until September 2009.

The information comes from three main sources, namely the World Bank site, the Bulgaria Forest Development Project site (including an important document containing information and reports on the project) and the Global Environmental Facility site.

### 1.2 Situation prior to change

During the 20th century, Bulgaria had a number of financial and organizational problems when it came to managing its forests. One cause was the fragmentation of forest lands. The wood processing industry operated at only 10-20% capacity<sup>45</sup>. In addition, forestry management legislation was dated.

The population in forested areas also faced numerous difficulties. There was little work available, and logging no longer represented a sufficient source of income.

The forestry road network also needed to be rethought. The poor condition of the roads and difficult access to forest fires needed to be addressed.

### 1.3 Environment for change

There are a number of problems facing Bulgaria's forests. First, in recent years 3.5% of the country's forests were destroyed, mainly by forest fires. Second, 45% of the forests are young, which limits logging activities. Last, strong political pressure has been brought to bear to

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<sup>45</sup> The World Bank Group.



restructure and privatize public forests in order to make operations more profitable. The government wants to improve citizens' quality of life and reduce poverty. Bulgaria is also trying to join the European Union and become a member State.

Wishing to review forestry management practices, which to date have seemed inefficient and far more costly than lucrative, the Ministry of Agriculture and Forest has launched a number of reforms. Under the Ministry's auspices, the National Forestry Board, which is responsible for managing Bulgaria's forests, has gone from the status of government agency, with its own budget and resources, to that of a branch of the Ministry, with access to the latter's budgetary resources<sup>46</sup>.

In 2002, economic and social pressure led the World Bank to adopt a forestry management strategy as well as an operational policy in order to help the country manage its forests more efficiently and sustainably. The World Bank provided a large portion of the funds to Bulgaria for the Bulgaria Forest Development Project. The Bulgarian government and the World Bank teamed up to develop an efficient management model for the forestry sector, a model that could be used by other countries as well.

## 2. The model

### 2.1 Lead agencies

World Bank

Is developing a new management method as part of the Bulgaria Forest Development Project in cooperation with the Bulgarian government;  
Is financing the project.

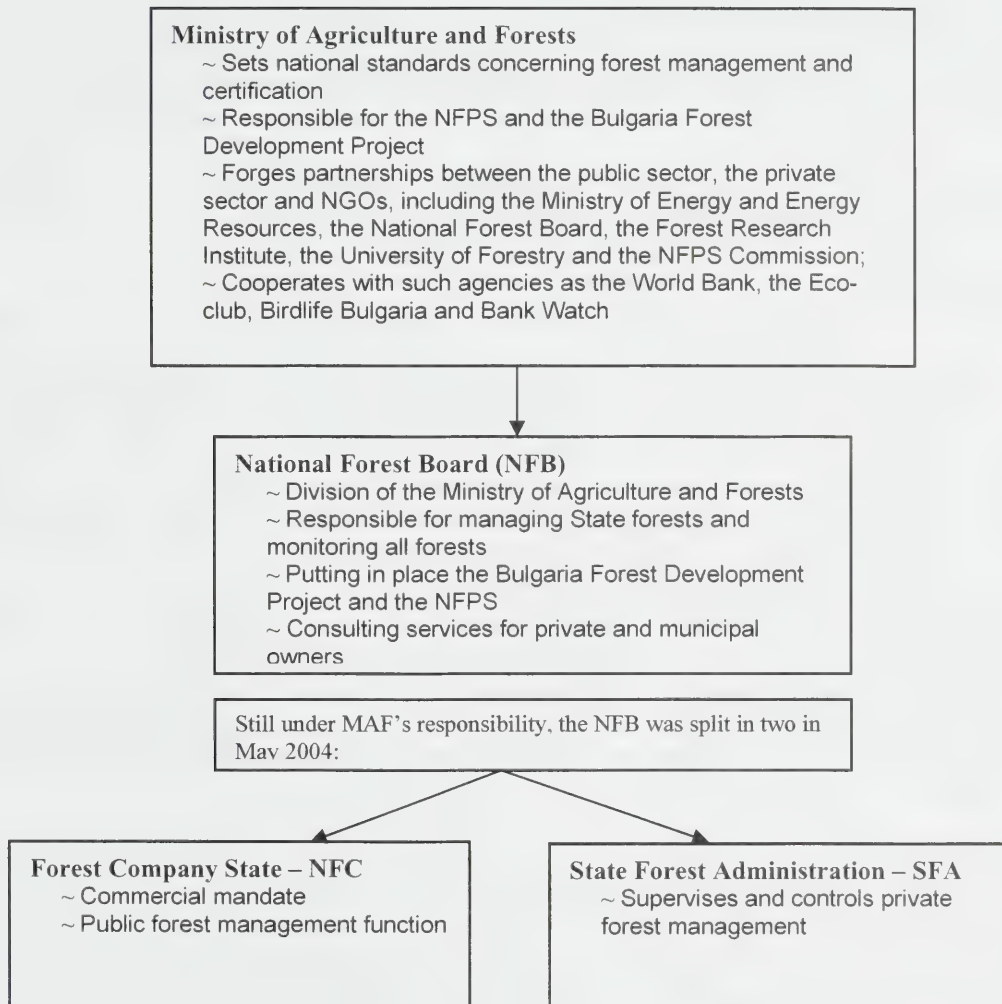
Global Environment Facility

Is financing the project;  
Is acting in a consulting capacity.

**Table**  
**Funding for the Bulgaria Forest Development Project**

Actors	Contributions \$	%
World Bank	45.78 million	67.7
GEF (Global Environment Facility)	10.68 million	15.8
Others	11.14 million	16.5
<b>Total</b>	<b>67.6 million</b>	<b>100</b>

<sup>46</sup> HICKEY, T., and H. Philips.



## 2.2 Practice

The Bulgaria Forest Development Project consists in putting in place a national strategy as well as a new policy providing the basis and guidelines for developing the forestry sector. One of the main objectives is to restructure the forestry management system by taking a page out of

Western Europe's book. The documents consulted do not give us specific examples, however. Combating forest fires represents a major focus of the project, involving modernization of the fire prevention system, the purchase of new equipment (including vehicles), and the regeneration of damaged forests.

In addition, the project provides for the creation of a new business centre in order to stimulate commercial and domestic demand for wood products. Advice will also be given to private forest owners to get them to manage their forests better so as to optimize logging operations. The project also promises to relaunch the reforestation activities that were abandoned during the 1990s. Activities aimed at preserving biodiversity will be developed in partnership with other donors. These activities include training sessions for the public, awareness seminars, preparation of strategies to improve forestry management, purchase of new equipment and restoration of critical habitats. Increased reliance on biomass energy to heat schools and hospitals is also planned.

According to the documents published by the government, the Bulgaria Forest Development Project and its many partners have a five-part plan:

Strengthen public forest sector management, including inspection services, forest fire management, a GIS database on forests, updating of all forestry databases and promotion of forest products;

Facilitate sustainable forestry development for private and community forest owners through the creation of the Bulgarian Association of Forest Owners, and through certification of the new management method. This will help standardize management practices throughout the country; Adapt State forest management to market conditions and the new realities concerning forest regeneration. This component includes optimization of the forest road network and rehabilitation of burned and degraded land. The managers want to develop a Code of Best Practice for the design, construction and maintenance of forest roads;

Promote biodiversity conservation by strengthening the system for protecting certain areas under the jurisdiction of the Ministry of Agriculture and Forest;

Carry out a results-based management project to help steer the project and provide follow-up throughout the implementation phase. It will be run by the Project Oversight Committee in cooperation with the Ministry of Finance, the Ministry of the Environment and the National Forest Company.

Lastly, in order to make a go of this national policy (NFPS), the government consulted a number of partners as well as various experts. According to the information document on the project<sup>47</sup>, 28 workshops took place during the policy preparation phase in order to gather feedback and new ideas from these actors. A Web site also enabled them to exchange ideas about the project on line. In addition, this consultative process included surveys of the general population, local communities, private forest owners and National Forestry Board staff.

## 2.3 Management

Building on European best practice examples, the forest management model proposed by the Bulgarian government in close cooperation with the World Bank foresees the separation of management and supervisory functions to improve efficiency, transparency and accountability of each of the government forest agencies and private owners. According to the information

<sup>47</sup> Bulgaria Forest Development Project.



document on the project<sup>48</sup>, the National Forest Company (NFC) should be financially independent and no longer dependent of the Ministry of Agriculture and Forests within three to five years. It will receive income from the sale of forest products. In order to meet this objective, the NFC has implemented results-oriented management.

The NFPS features a detailed timetable and an action plan. The timetable will serve as the basis for managing the forestry sector over the next ten years. To that end, analyses have been carried out by various actors on multi-sectoral aspects relating to forests (agriculture, rural and social development, industry, tourism, etc.).

## 2.4 Success factors

According to the documents consulted, in order to see their project through, the partners first had to agree on a vision of the forestry sector, set their priorities and choose the type of intervention required.

Analysing the experience of other countries like Poland, Croatia and Bosnia, the information document on the project identifies several success factors, among them:

- Separation of management and supervisory functions;
- As much importance attached to people and personal relations as to trees;
- The support received by private owners and the opportunity for them to collaborate;
- Raising awareness among private owners of sustainable forestry development;
- Treating biodiversity like it is part of a whole.

## 3. Outcomes

The project should contribute to sustainable development of Bulgaria's forests and help optimize these resources from an economic and environmental standpoint by the year 2009, according to the World Bank. In addition, it will help create jobs directly or indirectly related to the forestry sector in rural communities. According to forecasts issued by the GEF<sup>49</sup>, the number of illegal activities prosecuted should increase by 5% a year. The number of high-quality forest areas should increase from 264 hectares to 2 028 hectares within a few years. Last, the GEF forecasts that the net income of the NFP, which initially was losing \$4.58 million a year in 2003, should reach as high as \$18.31 million in 2007.

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# Joint Forest Management Project – India

## 1. Background

### 1.1 Context

Adopted in 1990 by the Indian government, the Joint Forest Management (or JFM) program has been implemented in India's forest regions. Its mission is to ensure sustainable management and protection of forests. JFM is the agency responsible for the program. To date, 25 of India's 28 provinces have passed resolutions agreeing to the program's implementation. The program is based on a concept of partnerships between forest user groups, i.e. local communities, and the Ministry of Environment and Forest. According to the rules of the cooperative, local communities and the government that owns the forests manage the resources and share the benefits equally. Judging by what is written in the documents, the private sector does not seem involved in the management of public forests.

The information comes from the following Web sites: JFM, UN-HABITAT (best practices database) and the Ministry of Environment and Forest.

### 1.2 Situation prior to change

According to authors Prasad and Kant<sup>50</sup>, before the establishment of the British system, which was in full force by 1850, forests were managed by trying to minimize social conflicts through an equitable, if not equal, system of sharing that distributed the benefits to the various sectors of society. Under the British Empire, which reigned from the mid-19th to the mid-20th century, India nationalized the bulk of its forests and brought in a new forest management system based on the principle of sustainable lumber yield and of excluding local populations. Because of the many conflicts between the Hindu and Muslim communities, the British granted India its independence on August 15, 1947. India split into two independent states: the Indian Union and Pakistan. After gaining its independence, the Indian government continued employing this system. It was not until the mid-1980s that the government admitted that this method of forest management was a mistake. Indeed, the British system had devastated the forests, altered the ecosystems and, above all, led to numerous conflicts between government agencies and the local communities. The population had tried to organize non-violent movements to bring a halt to these conflicts, but these actions were limited and sporadic. In 1988, the Ministry of Environment and Forests introduced a national forest policy that sought to involve the local communities. This gave rise to the JFM project on June 1, 1990.

### 1.3 Environment for change

According to Prasad and Kant<sup>51</sup>, in India:

Nearly 100 million people live in forest regions and are heavily dependent on certain forestry products for their subsistence;

A further 275 million people live on the outskirts of forests, under the same conditions, and are also dependent on forest products;

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<sup>50</sup> PRASAD, Ram, and Shashi KANT (2003). "Institutions, Forest Management, and Sustainable Human Development – Experiences from India".

<sup>51</sup> PRASAD, Ram, and Shashi KANT (2003). "Institutions, Forest Management, and Sustainable Human Development – Experiences from India".



Almost half of the forests have been affected by disease caused by the presence of insects and micro-organisms;

Many remote villages in India were deprived of essential services, such as irrigation systems, transportation infrastructures, public markets, banks, schools, medical centres or community centres.

## 2. The model

### 2.1 Lead agencies

JFM has various levels, each with different responsibilities.

#### Joint forest management

1 national cooperative; responsible for 63% of forests;  
Supervises small committees and liaises with the government.

#### Village Forest Council

14 073 committees at the local level<sup>52</sup>;  
Each participating village forms its own committee;  
Can adopt different names<sup>53</sup> according to the region and issues: Forest Protection Committees (FPC), Village Forest Committees (VFC) and the Eco-Development Committees (EDC);  
Conditions for joining these committees vary from province to province. JFM established a basic principle:  
Every family living near or in the forests and interested in taking part must have the opportunity to do so;  
The chair or vice-chair must be a woman. At least one of every three members must be a woman<sup>54</sup>;  
Only local workers are entitled to participate in the projects.

### 2.2 Practice

Of India's 28 provinces, 25 have passed resolutions to involve local communities in forestry management under the JFM program<sup>55</sup>. Each provincial resolution is adapted to the particular situation in each region.

Each Village Forest Council meets every three months. The Council can be made up of all the village's inhabitants, but it must appoint an executive committee comprising a minimum of five people and a maximum of 15. The committee is also responsible for managing the Village Forests Development Fund.

Once the councils have been created and the members appointed, they prepare management micro-plans based on the vision and aspirations of the villagers as regards management of their forest. The government has produced and approved a guide to help villagers form councils, prepare the micro-plan and manage the funds. Council members are invited to take three training courses dealing with the elements contained in the guide: strategic planning, the micro-

<sup>52</sup> Ministry of Environment and Forest, 2002 figures.

<sup>53</sup> Madhya Pradesh – Forest Department.

<sup>54</sup> Ibid.

<sup>55</sup> Ministry of Environment and Forest.

plan and funds management. Annually, this amounts to 1000 training sessions in 50 eco-centres<sup>56</sup>. The cooperative carries out a quarterly project assessment and follow-up, and a report is produced on expenditures, profits, meetings, council meetings, loans issued and amounts repaid. To ensure the transparency of the committee proceedings, meetings are open to the general public. Councils are also responsible for implementing the plans for which they are accountable. Lastly, they ensure control over forest fire and illegal logging operations.

## 2.3 Management

Acting in partnership, the Ministry of Environment and Forests and the local communities share fees and royalties as well as control and decision making regarding all forest management questions.

Forest administration has gone from centralized to decentralized management, requiring participation by the local population.

Each of the councils administers a fund made up of a portion of logging revenues. This fund is used to finance the infrastructures needed to improve villagers' quality of life.

## 2.4 Success factors

The success of the practice is due in part to a national environmental policy that links the forest villages' economic interests to the sustainable development of these territories. Thus, the role of the State shifts from implementation to facilitation. The fact that all the forest actors are involved constitutes an ingredient for success. Equitable distribution of the benefits and the infrastructure fund have a motivational effect on the local population, which now wants to become involved in logging and to preserve the forest. In addition, there is the opportunity for all the societal actors to become equal partners in the decision-making process.

According to UN-HABITAT<sup>57</sup>, which identifies best practices in forest management, the fact that the joint forest management practice was more of a success in some villages than in others can be explained by the presence of certain levers, such as more dynamic local policies, simplified procedures, groups of motivated users and the development of mutual trust among the partners.

## 3. Outcomes

During the years 2001-2002<sup>58</sup>, training was given to 95 rangers and 202 forest guards at the Southern Forest Rangers College (SFRC); 198 forest guards were trained at the Tamil Nadu Forestry Training College.

According to the sites consulted<sup>59</sup>, the local population now feels involved and is showing a lot of pride in its forest. The benefits have also increased, enabling the population to live more comfortably and to acquire a number of infrastructures. The JFM program as put in place in the Haryana region has received an award from UN-HABITAT<sup>60</sup>. In fact, it is thanks to JFM's success in this region that committees have sprung up so quickly in the country. This joint management mode has also influenced forest management practices in Nepal, Thailand,

<sup>56</sup> Tamil Nadu Forest Department.

<sup>57</sup> UNHABITAT.

<sup>58</sup> Tamil Nadu Forest Department

<sup>59</sup> PRASAD, Ram, and Shashi KANT (2003). "Institutions, Forest Management, and Sustainable Human Development – Experiences from India".

<sup>60</sup> UNHABITAT.

Indonesia, Cambodia, the Philippines and Vietnam. The Haryana JFM program also earned the Save the Drylands award in 1997, presented by the United Nations Environment Program (UNEP).

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# Living Forests Project – Norway

## 1. Background

### 1.1 Context

Much of Scandinavia, Norway included, is covered by forest. As of 2003, Norway had a population of 4.5 million. According to Boreal Forest, a global forestry Web site operated by Lakehead University in Ontario, forests cover 37% of the Norwegian mainland, with 88% privately owned by 120 000 owners<sup>61</sup>. The forestry sector accounts for 1.6% of employment and 8.6% of exports.

Over a century ago, the Scandinavian countries adopted a policy to regulate the management of their forests. This policy promotes sustainable forestry development and concurrent marketing of wood and non-timber forest products. It also confers certain rights, like public access to private forests for a variety of activities, including walking or berry and mushroom picking. At the same time, each country has its own infrastructure to regulate the development of its forests. In Norway, the *Forest and Forest Protection Act*<sup>62</sup> was passed in 1965 and revised in 1997. It is being revised once again, with a view to simplifying it. The Act gave rise to a number of programs, including the Living Forests Project, which ran from 1995 to 1998. Its objective was to define 23 performance levels for meeting quality standards in the area of forestry management. The Living Forests Project budget was \$4.8 million over the three years.

The information used for this record was obtained from the Living Forests Project and Boreal Forests Web sites, as well as a study on Norway's forestry policies and resources presented by the Norwegian government.

### 1.2 Situation prior to change

According to Boreal Forests, because of heavy commercial operations by the forest industry, most of Norway's forests are facing a shortage of mature trees. This is also causing problems for certain micro-organisms that depend on them. The new forestry management system must therefore emphasize habitat preservation. To that end, numerous certification programs and new standards were introduced during the 1990s.

### 1.3 Environment for change

Private forests, most of which are owned by farmers, remain important for the forest industry. According to the documents consulted, however, many of Scandinavia's private owners, families in particular, are more interested in the esthetic and recreational qualities that the forest offers them rather than the benefits derived from the sale of wood.

## 2. The model

### 2.1 Lead agencies

The State:

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<sup>61</sup> Boreal Forest.

<sup>62</sup> Amended in 1965 and reviewed in 1997.

Overall responsibility for forestry management;

Sets policies and certifications;

Consults private owners and industry experts before any amendments.

Thirteen main partners helped research performance standards, including forest owners, forest industry groups, unions, the government and consumers representing economic, environmental, social and cultural interests. This comprises some 200 organizations directly or indirectly involved in the process.

According to the government, nearly 15 000 private owners are taking part in various programs and consultations on forestry management.

The Agricultural University of Norway and the Norwegian Forest Research Institute:

Coordinates the various forest research studies;

Advises the government;

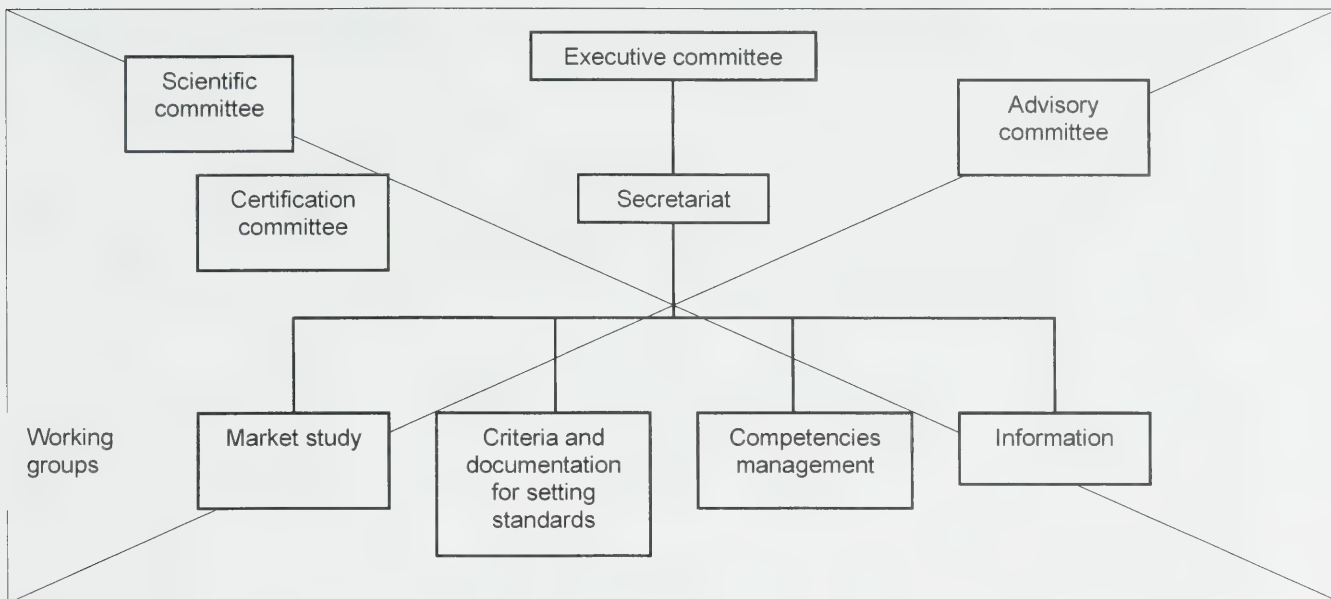
In 2002, the Norwegian government spent \$23.8 million on forest research, while private interest chipped in a further \$11.1million.

**Table**  
**Actors involved in financing the Living Forests Project**

Actors	Amount (\$)
Government	2.4 million (50%)
Private owners	1.2 million (25%)
Forest industry	1.2 million (25%)
<b>Total</b>	<b>4.8 million</b>

Management of the Living Forests Project employs about a dozen permanent staff at the secretariat and comprises some 90 people, who are assigned to the various working groups. The Projects organization chart is as follows:

**Table**  
**Living Forests Project**



The Executive Committee of the Living Forests Project is made up of representatives of the Norwegian Forest Owners Federation, Norwegian Forestry Association, Norwegian Sawmill Industries Association, Norwegian Pulp and Paper Association, State-owned Land and Forest Company, Norwegian United Federation of Trade Unions, Norwegian Ministry of Agriculture and Norwegian Ministry of Environment<sup>63</sup>. These organizations and ministries have all helped finance the Project. Three expert committees are part of the Project's organizational structure: scientific committee, certification committee and advisory committee. Unlike the members of the working groups, the members of these committees are not employed on a full-time basis. Rather, they act on an advisory basis and meet once or twice a year.

The Project includes four working groups. The first, market study, is in the form of a forum to assess market competitiveness and the measures to take so that Norway's forest industry can gain a foothold. The second, criteria and documentation for setting standards, is responsible for six overall criteria, as well as the 95 performance indicators and the 23 quality standards defined by the Project. It must refer to the certification committee to ensure that the standards selected are consistent with those of the ISO international system and the FSC (Forest Stewardship Council) certification system. The third, competencies management, is aimed more at forestry workers in order to develop their skills in line with the new standards. The fourth, information, has adopted communication strategies to publicize the Project through the Associations and Federations, which can reach their new members more easily.

## 2.2 Practice

One of the main objectives of the Living Forests Project is to position Norway more favourably on international markets and promote a long-term forestry management practice. The priority contained in the quality standards emphasizes the development of the market for bioenergy and

<sup>63</sup> Norwegian Forest Owners' Federation, Norwegian Forestry Association, Norwegian Sawmill Industries Association, Norwegian Pulp and Paper Association, State-owned Land and Forest Company, Norwegian United Federation of Trade Unions, Norwegian Ministry of Agriculture and Norwegian Ministry of Environment.



support for activities that stimulate the demand for wood. The priority should be met through improved communication among the partners, with the help of information sessions, and through the development of new products. The authorities are hoping that the introduction of forest certifications does not harm family-owned small forests by imposing an overly rigid framework on the owners. Long-term forest development is also important to maintain employment and various rural activities. The right to access private forests throughout Scandinavia also plays an important role in the marketing of non-timber forest products (berries, mushrooms, herbs, etc.). Indeed, Scandinavians and foreigners can make money off these products. The arrival of foreigners making money off these activities has, in fact, caused tension within the local population.

In Norway, the Living Forests Projects has helped develop a series of quality standards for each performance level. After three years of consultation and research (from 1995 to 1998), 13 partners presented in section 2.1 have accepted 23 quality standards<sup>64</sup>. These are supported by ISO14001 certification. The document containing the quality standards was distributed and discussed by 130 members of the advisory committee before being sent back to the drawing board. The final version (560 pages) achieved a consensus in March 1998<sup>65</sup>. It includes six overall criteria that sketch out the main thrusts of the Project and 23 quality standards based on 95 performance indicators<sup>66</sup>. More specifically, the document explained each standard while including a summary of recently acquired knowledge of the subject, a few statistical data, current trends, legislation concerning the practice and, finally, possible alternatives to the standard presented as well as an ecological, social and financial analysis of these alternatives. These standards have been communicated to the public through brochures, videos and other materials.

## 2.3 Management

Although it is already a concern for managers and the State, the population and consumers are continuing to bring a lot of pressure to bear so that the government's forest policies take the environment into account. According to Boreal Forests, the Norwegian certification system, which seeks to ensure sustainable development of forests and a national quality standard, is taking on an increasingly large role in forestry management.

The documents consulted mention a trust fund (Norwegian Forest Trust Fund) administered by local authorities, which was also put in place for long-term investments aimed at sustainable development of forests. However, the documents did not specify the structure of their involvement in the Project<sup>67</sup>.

## 2.4 Success factors

In addition to major participation by private forest owners, one could assume that respect for the European Commission's rural development policy constitutes one of the success factors. This policy stipulates that:

(UNOFFICIAL TRANSLATION) The protection and valorization of wooded areas is desirable within a decentralized framework of overall development (in harmony with the surrounding

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<sup>64</sup> Living Forest Norway.

<sup>65</sup> Taiga Rescue Network.

<sup>66</sup> See Appendix 1.

<sup>67</sup> Living Forest Norway.

territories) and of integrated development (in harmony with rural activities and the populations concerned)<sup>68</sup>.

### 3. Outcomes

In light of the documents consulted, the establishment of quality standards has helped make these forest industries more competitive on international markets and is helping ensure improved forest preservation. The Project was presented at conferences in Sweden, Finland, Denmark, Switzerland, Austria, the Netherlands, Portugal, Canada and Great Britain. In 2001, 70% of lumber came from forests certified by Living Forests Standards<sup>69</sup>. More and more industries are complying with this certification and that of the PEFC (Pan-European Forestry Certification) to remain competitive on international markets. According to the PEFC newsletter, consumers are insisting on this type of certification. In fact, the PEFC certification logo sometimes appears in advertising. Today, between 90% and 95% of Scandinavian forests are managed in a sustainable manner.

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<sup>68</sup> European Parliament.

<sup>69</sup> PEFC.

## Appendix 1: Project criteria and quality standards

The summary of the Living Forests Project outlines the following six criteria:

1. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycle;
2. Maintenance of forest ecosystem health and vitality;
3. Maintenance and encouragement of productive functions of forest (wood and non-wood);
4. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems;
5. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water);
6. Maintenance of other socio-economic functions and conditions.

The 23 quality standards cover the following areas:

- |  |                                 |
|--|---------------------------------|
| ~ Protection of Genetic Material –Forest Trees                       | ~ Fertilising                   |
| ~ Scarification  | ~ Old, Large Trees and Deadwood |
| ~ Areas of Biological Importance – Key Biotopes                      | ~ Forest Area Protection        |
| ~ Cultural Landscapes  | ~ Waste management              |
| ~ Long-Term Wood Production  | ~ The Work Force and Skills     |
| ~ Landscape Ecology  | ~ Distribution of Species       |
| ~ Forest Affected by fire  | ~ Outdoor Recreation            |
| ~ Bogs and Wetland Forest  | ~ Off-Road Transport            |
| ~ Forest Roads   | ~ Water Protection              |
| ~ Herbicide Spraying   | ~ Heritage Sites                |
| ~ Mountain Forests   | ~ Harvesting Methods            |
| ~ Afforestation / Introduction of New Species in Afforestation Areas |                                 |





# Gassinski Model Forest Association – Russia

## 1. Background

### 1.1 Context

Development of the Gassinski model forest is a source of revenue for a series of businesses as well as the local population, the Nanai. Indeed, six forest development and wood processing businesses are using 288 000 hectares (of a total area of 385 000 hectares) to produce lumber. The information used for this record comes mainly from the Web sites of the International Development Research Centre (IDRC) and the model forests network.

### 1.2 Situation prior to change

Forest resources are developed and processed by private businesses that do not contribute to the economic and social development of the local populations.

Thus, the region's standard of living is lower than the national average, and unemployment is higher. The average yearly income (wages and other income combined) of the 11 932 individuals living in the Gassinski forest is barely more than 4825 rubles (about \$298.10), while Russia's average monthly salary is 780 rubles (roughly \$50.68)<sup>70</sup>.

Unemployment in these communities is high, ranging between 46% and 52%<sup>71</sup> in the six villages comprising the region. This high rate of unemployment is due mainly to a lack of training, a lack of income-generating activities and the economic crisis plaguing Russia.

### 1.3 Environment for change

Traditionally, local communities have eked out a living from the forest (the gathering of timber and non-timber products, hunting and fishing).

According to the Gassinski Model Forest Association, the low standard of living and the remoteness of the services offered by the central authority are the main factors in the conflicts between the Nanai, the businesses developing the forest and the State officials.

## 2. The model

### 2.1 Lead agencies

The main body responsible for managing and implementing the project is the Gassinski Model Forest Association (GMFA). It was created by various stakeholders, including the Russian Ministry of Natural Resources, to provide Gassinski residents with a decent, adequate standard of living thanks to the benefits derived from the sustainable, responsible development of the region's natural resources. By encouraging social and economic development, the GMFA has set out as its main objective to reduce the region's high rate of unemployment.

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<sup>70</sup> Gassinski Model Forest Association.

<sup>71</sup> Ibid.

The organization was founded through an agreement among:

- The Russian Ministry of Natural Resources;
- The Krai government<sup>72</sup>;
- The Experimental Forestry Unit - NEFU;
- The local populace;
- Far East Forest Industries Integration.

Financing for the GMFA comes mainly from:

- The Canadian International Development Agency (CIDA);
- The Canadian Forestry Service;
- The Federal Forest Service of Russia;
- The Krai Department for Natural Resources Use Management.

The project budget is approximately \$5 250 000. CIDA has the largest contribution, with \$3.5 million, followed by the Russian government, with about a million dollars, and various other stakeholders, with nearly \$750 000.

## 2.2 Practice

The organizations mentioned in section 2.1 formed an association of partners interested in sustainable forestry management, made up of stakeholders from both the local population and State entities. Its main goal is to increase the standard of living of the local population by using forest resources so as to obtain as much value added as possible.

The practice seeks forestry protection and natural resources integration in an improved management system in order to maximize the forests' socio-economic spin-offs for the local population. Thus, it tries to promote the economic and social development of the Nanai community through the participation of businesses that develop forest resources (donations, financing of micro-projects, low-interest loans).

## 2.3 Management

In 1999, the GFMA concluded a four-year cooperation agreement with the McGregor model forest in Canada. This agreement, based on a sharing of experiences between the two model forests, seeks improvements in the competencies of public and private forest stakeholders. In this way, the project officials are attempting to improve the management, the quality of the products, the range of goods and services offered and the local forest industries' market positioning. The project officials have provided the local population and private stakeholders with technical assistance in the area of activities planning, financial management, human resource management and training.

The project is active on six fronts:

- Processing of value added wood;
- Increase in forest production capacity;
- Promotion of the local population's ancestral know-how;

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<sup>72</sup> Khabarovsk Krai is a large administrative region (pop.: approx. 1.6 million) covering a surface area of over 790 000 Km<sup>2</sup>.



Development of regional tourism;  
 Creation of a national park;  
 Promotion and development of commercial ties among various local groups.

## 2.4 Success factors

According to project officials, certain determining factors have been given special consideration: Respect for local values and customs so as to avoid any type of conflict; also, special emphasis on continuing education for the local communities.

Involvement of private forestry development firms in the region, so that they invest in local projects of benefit to the local populace.

## 3. Outcomes

According to project officials, this practice had helped identify and put in place best management practices promoting economic development based on the sustainable management of natural resources and communication with local and provincial stakeholders. With these new practices in place, an increase in the employment rate has been recorded. The labour force within the Nanai community has increased by more than 50%, including jobs created in forest development companies, new projects and indirect jobs.

Lastly, the region's natural resources, especially forest resources, have been thoroughly identified and catalogued, and are thus better protected. Also, their development is controlled and managed from a perspective of sustainable local development.

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# Forest Practices Code – Tasmania

## 1. Background

### 1.1 Context

Located in Southeastern Australia, Tasmania is one of the country's six states. Here are a few figures on Tasmanias forests, according to 1998 data published by the Australian government: 50% of its landmass is covered by forests, amounting to 3.4 million ha of forest;

Over 39% of the forests are in formal reserves;

30% of the forests are public;

31% are private;

25% are owned by companies;

75% are owned by small landowners<sup>73</sup>.

The average annual volume of wood harvested from public and private forests is about 4.5 million m<sup>3</sup>;

The Tasmanian forest industry contributes about \$1.471 billion to the State's economy each year, according to a 1998 assessment;

20% of primary sector jobs<sup>74</sup>.

The project on Tasmanian forestry practices began in 1985 with the introduction of the *Forest Practices Act* by the Forest Practices Board. The Act was passed in 1987 and then revised in 1993 and 2000<sup>75</sup>. As mentioned in the Act, the primary goal, based on a philosophy of trust and cooperation between the government and owners, is to allow the sustainable development of private and public forests.

The information used for this record comes from three main sources: the Forest Practices Board Web site, including the 2002-2003 annual report; the Private Forest Tasmania Web site; and a study on sustainable forest management in Tasmania carried out by Graham R. Wilkinson, the head of the Forest Practices Board, and published by the Food and Agriculture Organization of the United Nations (FAO), an international body.

### 1.2 Situation prior to change

According to Graham R. Wilkinson<sup>76</sup>, before the 1980s there was no legislation regulating the management of Tasmania's private forests, and government authorities were concerned about forest regeneration and long-term sustainability. At that time, there was a strongly held principle of private rights; pressure brought to bear by the private sector tied the governments hands to some degree. To overcome this resistance, the government engaged the private sector in a cooperative way.

### 1.3 Environment for change

Until recently, forestry operations in Tasmania were confined to very lightly populated regions. However, these operations have moved and are now conducted in more populated regions. During the 1990s, tensions between the forest industry and rural communities arose because of

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<sup>73</sup> WILKINSON, Graham R.

<sup>74</sup> Tasmania's Forest Practices Board.

<sup>75</sup> Ibid

<sup>76</sup> WILKINSON, Graham R.

conflicts between forestry development and agricultural development. At the same time, many people from an urban background began settling in rural areas for lifestyle reasons<sup>77</sup>.

## 2. The model

### 2.1 Lead agencies

To ensure improved cooperation among the various forest users as well as between the private and public sectors, the government, in partnership with the private sector and the forestry industry, has developed a code of practices designed to certify that forestry operations are equitable for all.

The main partners who helped develop the code are:

The government:  
Ministry of Forests

Forest Practices Board (FPB):  
Economic, environmental and social role;  
Makes laws, ensures compliance with the Forest Practices Code, reviews management plans for private forests.

Forest Practices Advisory Council:  
The Council organizes forums during which members can exchange views and express opinions about management practices.

Forest industry:  
Employs forest practices officers who supervise the operations to enforce the *Forest Practices Act*;  
Encompasses a number of ISO 14001-compliant industries;  
Helps finance three services that are helping implement the Forest Practices Act:

Preparation and certification of forest practice plans;  
Supervision of forest practices;  
Training for contractors, managers and forest practices officers.

Private Forests Tasmania:  
Is a government authority founded under the *Private Forests Act* of 1994;  
Its role is to promote the development of private forests;  
Its staff are known for their hands-on experience in the industry and their technical expertise when it comes to private forests.  
According to the 2002-2003 annual report of the FPB, funding for the structures put in place at all three levels (government, industries and private sector) breaks down as follows:

Source	Amount
Forest industry	\$9.487 million +

<sup>77</sup> WILKINSON, Graham R.



	\$1.355 million for research and development
Internal financing (through the sale of wood products)	\$1.786 million
Government	\$683 100

## 2.2 Practice

The Forest Practices Code sets out the manner in which forestry operations must be planned and conducted with an eye to sustainable forestry development. It also deals with the construction of roads that cut through forests, as well as providing guidelines for the conservation of flora and fauna, soils and water, geomorphology, cultural heritage and visual landscape<sup>78</sup>.

The Code seeks cooperation between the government and the private sector. Partnerships have been formed to optimize resources and avoid needless bureaucratic duplication and excessive costs. Forest owners can now deal with a single body, the FPB.

According to the FPB<sup>79</sup>, performance could be improved if a more self-regulatory approach were adopted. Each partner must report its annual results to the Board in order to ensure greater management transparency vis-à-vis the other partners. The government negotiated a series of rules with the private sector that were accepted by all. The Code recognizes private landowners' rights and offers them greater investment security while streamlining the approval process. In exchange, private landowners agree to comply with the Forest Practices Code.

In fact, the partnership has four main features<sup>80</sup>:

**Governance:** Private landowners are involved in the governance of the forest practices system, through membership in the Forest Practices Advisory Council.

**Consultation:** The Forest Practices Act formally provides that the board must consult with the private sector prior to making any amendment to the Forest Practices Code;

**Security:** The Act allows landowners to have their land declared as a Private Timber Reserve, thus guaranteeing the landowners' long-term investment. In return, the landowner gives a commitment to manage the forest in accordance with the Forest Practices Code;

**Duty of care:** Private landowners have agreed to reserve land from logging, up to prescribed thresholds, in order to protect natural and cultural values;

Forest rangers hired by the industry must complete the training offered by the Ministry of Forests, which hopes to ensure a degree of uniformity in the management of both private and public forests. A final aim of the partnership is to ensure that each party recognizes its responsibility toward the community so that forest operations are planned and carried out correctly. Thus, both the government and private forest owners should be sensitized to sustainable forestry development.

<sup>78</sup> Tasmania's Forest Practices Board.

<sup>79</sup> WILKINSON, Graham R.

<sup>80</sup> Ibid.

## 2.3 Management

Private Forests Tasmania must:

Assist all landowners and investors to manage all types of forest on both large and small areas;  
 Encourage forest regeneration by advising forest owners and workers on the essential principles involved in land restoration;  
 Promote private forestry research and education;  
 Coordinate a regular inventory of the private forest area and resource;  
 Assist with the development of competitive markets;  
 Advise State government on private forestry (number of forests, status, issues, etc.);  
 Represent private forestry interests nationally<sup>81</sup>.  
 The FPB has also set up a Tribunal to hear complaints and make determinations regarding non-compliance with forestry legislation.

According to the *Forest Practices Act* of 1985, private forest owners must produce a three-year plan for their operations. To allow for better follow-up, the FPB conducts in-depth analyses of certain randomly chosen plans. In 2002-2003, 157 plans, or 17% of all plans proposed, were audited by the Board to check for compliance with the Act and standards, which helps pinpoint sectors where the Board feels that improvements should be made to ensure sustainable management<sup>82</sup>.

## 2.4 Success factors

In his report, Wilkinson identifies three elements that foster an effective partnership among the FPB, forest owners and the forest industry<sup>83</sup>:  
 Recognize and clarify each party's rights, roles and responsibilities;  
 Optimize the use and development of skills and resources;  
 Encourage all partners to develop best practices.

## 3. Outcomes

In its 2002-2003 annual report, the Forest Practices Board states that in addition to removing some of the pressure and fostering understanding between the two parties, the public-private partnership and the creation of the Forest Practices Code have led to the development of higher standards for management practices, applicable in all State forests. The current concerns are to improve the Practices Code and bring it up to date<sup>84</sup>.

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<sup>81</sup> Private Forest Tasmania.

<sup>82</sup> 2002-2003 annual report of the Forest Practices Board.

<sup>83</sup> WILKINSON, Graham R.

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# THEME 5: TRANSPORT INFRASTRUCTURES

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## 1. Definition and context

The development of resource regions in particular and the ever-growing volume of traffic have led most States to review their transportation infrastructures. Devised near the middle of the last century, these infrastructures are often no longer suited to current and future requirements and need to be upgraded.

The presentation of the transportation theme touches on infrastructure development and redevelopment projects, which are designed in large part to stimulate economic and social development in isolated regions. Transportation is also an area of concern when it comes to such things as the environment and equal access to basic services.

## 2. Trends

As for transportation management modes, central governments supported by international organizations are always the main donors. However, the new modes of management are getting local populations more and more involved in an effort to meet their real needs. In addition, public-private partnerships in large projects seem to be taking on an increasingly large role.

## 3. Presentation of practices

Five practices have been selected for transportation. They involve local issues that, while widely divergent, all have to do with the integration of various means of transportation.

### Sub-Saharan Africa Transport Policy Program

New global policies adopted by various international organizations have led the countries of Sub-Saharan Africa to develop transportation infrastructures enabling the local population to access essential services. These projects are based, among other things, on a decentralization of decision-making power to the communities.

The program has five major components and an equal number of strategies. In addition, there are four main action areas:

- Sponsoring research, documentation and conferences;
- Raising governments' awareness of transport issues;
- Serving as an advisor or facilitator to transport policy development;
- Coordinating initiatives and sponsoring links.

The primary aim of the program is to facilitate the population's access to basic goods and services, like water or medical care.

### Transportation Plan - Alaska

Alaska has launched a number of projects to develop its territory and link up its various communities to one another. The Southeast Alaska Transportation Plan provides for new infrastructures to improve marine and air transportation as well as local roads. The local

population, which defined its priorities and set out its needs, was involved in managing the project. A dual approach of needs analysis and economic analysis was adopted. Four main projects are presented: improvements to the road network between Williamsport and Pile Bay; improvements to the harbour and roads and creation of an air plan for Chigniks; construction of a road between Kodiak and the seaport; and the connection between King Cove and Cold Bay.

### **Development project for the region of Tumen - China**

The project features the participation of five countries: China, Russia, Mongolia, North Korea and South Korea. It seeks to develop the regions located along the shared borders through the creation of an economic zone.

The project comprises a range of initiatives, including an action plan for regional cooperation in the area of transportation. Among its objectives: easier access between the countries; more competitive marine and rail transportation costs; and technical knowledge exchanges among the countries.

### **Royal Arctic Line - Greenland**

Royal Arctic Line in Greenland was created in 1992 following privatization of KNI Service, a government-owned company. The Royal Arctic Line changed the practices associated with harbour management, which is now a joint undertaking of the public and private sector. Privatization of the Royal Arctic Line has also made it possible to forge partnerships with other countries, including the United States and Canada, and to offer improved service at more affordable prices for the local population.

### **Transport Policy for Sustainable Development - Sweden**

Sweden introduced a new transport policy in 1998 to improve existing infrastructures and develop new corridors to link up the regions. The policy, which has six objectives, should ensure greater accessibility throughout the country.

The policy adopted provides for transportation decisions to be decentralized. That is why the government has clearly separated planning responsibilities from implementation responsibilities. The government would like to see a tax system for heavy-duty trucks based on mileage.



# Transport Policy Program – Sub-Saharan Africa

## 1. Background

### 1.1 Context

Rural factors play a large part in poverty in Sub-Saharan Africa<sup>85</sup>:

70% of poor people live in rural areas;

66% of Africa's total population lives in rural areas.

The product of an international partnership, the Sub-Saharan Africa Transport Policy Program (SSATP) is charged with promoting transport sector reforms. The Program seeks to put in place transport policies that will improve inhabitants' quality of life by reducing poverty and enabling them to access international markets. In the words of Yoweri Museveni, President of the Republic of Uganda:

"If the roads were open, the major ones and the feeder ones, then a number of things would happen. First of all, [people] would be able to market their crops. Then the traders would be able to easily carry goods to the rural areas. Then also the investors would find it easier to go up country and invest there."<sup>86</sup>

The information used for this record was taken mainly from the World Bank Web site. Reports filed by expert groups, one written by Gunter Zietlow and another a collaborative effort by Paul Starkey, Simon Ellis, John Hine and Anna Ternell, were also used.

### 1.2 Situation prior to change

According to the World Bank, in the 1990s transport costs in Africa were up to six times higher than elsewhere in the developing world. Roads are rarely maintained, and sometimes people have to travel along dangerous routes to fetch wood or to make their way to the market, school or medical centre.

### 1.3 Environment for change

A number of countries and international agencies want to help Africa extricate itself from the extreme poverty from which it suffers by helping it improve its transport infrastructures. With adequate roads, commerce would be easier and the population could have better access to such services as health and education. According to the reports consulted, it is only by improving its transport infrastructures that Africa can hope to penetrate global markets.

## 2. The model

### 2.1 Lead agencies

The SSATP offers a general framework and overarching policies that are examined and put in place by national governments.

The World Bank manages and supplies some of the funding for the Sub-Saharan Africa Transport Policy Program.

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<sup>85</sup> The World Bank Group, 2002 figures.

<sup>86</sup> The World Bank Group, Sub-Saharan Africa Transport Policy Program.

The African Development Bank (AfDB) also supplies some of the funding.

The governments of Belgium, Canada, Denmark, the European Union, Finland, France, Germany, Iceland, Ireland, Italy, Japan, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States:

Finance one or more SSATP activities;

Participate in the annual general meetings;

Prepare guidelines on transport development in conjunction with the SSATP team.

Other partners: the International Solidarity in Transport and Research in Sub-Saharan Africa network (SITRASS), West African Economic and Monetary Union (WAEMU), training institutes, the African Road Maintenance Funds Association (ARMFA), a few NGOs, etc.

SSATP's annual budget is around \$6 million, but the sites consulted do not give a breakdown of these financial resources among the organizations involved.

## 2.2 Practice

The primary goal of Sub-Saharan transport policy is still to help the population access basic products and services (water, medical care and other general services) through the development of affordable transport infrastructures.

The program has five components:

Road management initiative (see point 2.3);

Rural travel and transport;

Urban mobility;

Trade and transport;

Railway restructuring.

The Rural Travel and Transport Program is promoting five key approaches:

Establish national policies and strategies for rural roads and transport to build sector coherence;

Develop a legal and financial framework that encourages local communities to claim ownership of their roads;

Decentralize decision-making to the local level, and involve and empower those who suffer the consequences of poor maintenance and lack of access;

Promote transport plans at the local level and ensure that facilities are better placed;

Use appropriate technology and employ small-scale contractors and local labour.

The SSATP is active on four main fronts:

Sponsoring research, documentation and conferences;

Raising governments' awareness of transport issues through publications, the Internet, videos and seminars;

Serving as an advisor or facilitator to transport policy development in Africa;

Coordinating initiatives and sponsoring links between institutions in Africa and elsewhere in the world.

## 2.3 Management

As part of the SSATP, the United Nations Economic Commission for Africa (UNECA) and the World Bank launched the Road Management Initiative (RMI) in 1988<sup>87</sup>. In fact, this initiative was first carried out in Latin American countries. Next, pilot projects took place in various African countries, including Cameroon, Kenya, Madagascar, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe.

The RMI proposes that road maintenance contracts be based on performance standards rather than a schedule of unit prices. Thus, the work is assigned to private contractors who have exclusive responsibility for selecting, designing and executing the work, provided that they meet the performance standards. The contractor assigned to perform the work chooses what techniques to use, the materials and the maintenance methods. Despite the risk to the contractor if the time or necessary resources have been underestimated, the contractor can increase his profits if he becomes more cost-effective while meeting the standards set out in the contract.

According to the SSATP site, participation in such programs as the Rural Transport Program involves six steps:

Countries interested in joining the program contact SSATP management and request support;

A national program coordinator will be nominated and national and local levels of the program will be developed. The SSATP will finance focused studies by local consultants. Local consultants will be able to rely on SSATP support;

Conducting national and local seminars. These seminars provide an opportunity to engage various stakeholders each step of the way;

Formulating national policy and strategy. Various pilot projects can be organized;

If necessary, certain institutions can be reformed. Adapted programs are then developed;

National programs are implemented and the projects are funded by donors.

## 2.4 Success factors

The presence of numerous donors is certainly a key success factor for the program. The way we see it, dual involvement – and by that we mean an overall policy for Sub-Saharan Africa subsequently applied at the national or local level where the project is managed – also constitutes a solid foundation. Indeed, when they are sensitized to the issues and see what other regions or countries around them are doing to improve transport, national governments seem more receptive to change.

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<sup>87</sup> ZIETLOW, Gunter.



### 3. Outcomes

As evidence of the success of the Sub-Saharan Africa Transport Policy Program, the documents consulted cite a few accomplishments:

Supporting eight countries where the enhanced policy environment has allowed the undertaking of major sector investment programs in transport;

Facilitating the establishment of an Urban Mobility Authority in Dakar, which helped strengthen the partnership with the Municipal Development Program;

Supporting transit traffic monitoring in West Africa as a step toward removing barriers to internal and external trade and commerce (costs, absence of infrastructure linking one region to another, etc.);

In Kampala, Uganda, the flow of traffic has significantly improved. 45 km of bitumen and 27 km of gravel roads were rehabilitated. Thanks to the new initiatives, some 25 000 vendors now benefit from the rehabilitation of the markets. This upgrading has had a ripple effect with vendors in the Nakawa and Kabalaga markets, among others. These markets would like to make the same improvements<sup>88</sup>;

The SSATP initiatives have enabled Nigeria to rejoin the International Maritime Organization (IMO), from which it had been excluded in 1995. According to the OTAL site, this announcement provided the country with genuine hope;

One of SSATP's biggest successes involves a joint undertaking with the Maritime Organization for West and Central Africa (MOWCA) aimed at reforming the African Shippers Councils and making African ports more competitive. These reforms led to the establishment of standards on prices and on operational performance<sup>89</sup>;

Railway policies were also reformed, allowing 14 countries to implement railway concessions. But according to the World Bank, while the SSATP has made significant improvements to major transport infrastructures and has facilitated commerce, the program has barely made a dent in the local transport problems affecting families, in particular women who must still transport very heavy loads such as wood and water.

A wide-ranging operation aimed at promoting and disseminating the SSATP's achievements was launched in 1997 by the World Bank.

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# Transport Plan - Alaska

## 1. Background

### 1.1 Context

With its cold climate and mountainous topography, Alaska is made up of small, isolated communities scattered across its territory. Although it shares a border with the Yukon and British Columbia, this American State is surrounded mostly by water. There are many transport infrastructure projects going on in Alaska, but this record will confine itself to the Southeast Alaska Transportation Plan, a component of the Statewide Transportation Plan, which was accepted in November 2002. Like other Alaskan transport plans, this one is part of the government's efforts to comply with State and federal laws regulating transport<sup>90</sup>.

The Southeast Alaska project began in 1997, and is expected to be completed in 20 years. Various modes of transportation are involved (road, rail, maritime, air). The region covered by the Southeast plan comprises the Alaskan peninsula, Kodiak Island and the neighbouring islands, Aleutian Island, Bristol Bay and Pribilof Island. Improving the transport system in this region seems crucial in order to meet the demand for infrastructures and make transportation efficient, while reducing costs for users.

The information used to prepare this record comes from a variety of documents on the Web site of the Department of Transportation and Public Facilities of Alaska and on the Web site of the Government of Canada. Other useful information was provided by Mr. Eric Taylor, manager of Alaska's statewide transportation plan.

### 1.2 Situation prior to change

According to the Alaskan Department of Transportation and Public Facilities (DTPF), Alaska's poor transport infrastructures have left most Alaskan communities isolated from one another. Until now, the main transportation system had consisted of small landing strips for each community, which the State maintained at great cost. But according to the DTPF, this system was not viable. The communities were not wealthy enough to support the costs of maintaining the landing strips, air transportation seemed unaffordable for most residents and the U.S. Postal Service was recording a major operating deficit for activities carried out in this region. In fact, for most people, airplanes were the only practical means of travelling from one community to another and of entering and leaving the State.

### 1.3 Environment for change

Under recent federal and state laws, Alaska, through its DTPF, has put in place numerous transport plans complete with 20-year development projects aimed at promoting economic development in the regions concerned and enhancing the quality of life in its communities, which will also benefit from increased services and easier travel arrangements.

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<sup>90</sup> Alaska Statute 44.42.050 and 23, Code of Federal Regulations (CFR) 450.214, Department of Transportation and Public Facilities.



## 2. The model

### 2.1 Lead agencies

The DTPF is responsible for Alaska's transportation plans as a whole. It has also formed teams to work on the ground and consult the population.

These transportation planning teams, made up mostly of engineers, are headquartered in the various regions covered by the transportation plan.

The teams work in partnership with the cities, representatives of certain villages, regional corporations, and members of the mining and oil industries to document the transportation plans.

According to the documents consulted, the local population has been widely consulted by the DTPF. The communities themselves are charged with organizing public meetings to increase the rate of participation. Interpreters are also present at the regional meetings for Aboriginal communities, for those who do not speak English.

Public Review Group:

Staffed by some 600 citizen volunteers;

Reviews reports, plans and the various editions of the program;

Gives its opinion.

Policy Advisory Committee:

Made up of 24 transportation partners;

Developed a first draft of transportation policies in 1996;

Produced a second draft after receiving input from the population.

The projects are funded by:

Alaska's Department of Transportation and Public Facilities;

The Denali Commission, which grew out of a partnership between the federal and Alaskan governments to see to Alaska's infrastructure needs;

Alaska Bureau of Indian Affairs.

The documents consulted do not contain information on the amount or breakdown of the investments.

### 2.2 Practice

The project feasibility study required a two-fold approach: on the one hand, a transport needs analysis, and on the other, an economic analysis of the spin-offs that will come into play eventually. The new transport infrastructures should reduce the costs of government services, increase the regions economic values and enhance the quality of life of families and industries in these regions.

The transportation plans should preserve the traditional culture, the way of life and the natural resources of the regions involved, while creating more opportunities for education, employment and improved living conditions.

The Southeast Alaska Transportation Plan prioritizes projects that benefit both the local population and the government. The new infrastructures must foster economic development in the regions and facilitate the distribution of goods and services for businesses, the communities and the government, such as mail or health services. For example, by linking the communities to one another, the government can centralize certain services and thereby generate long-term economies of scale.

The Southeast Alaska Transportation Plan comprises four main projects:

Upgrading the road network between Williamsport and Pile Bay.

There is already a road between Williamsport and Pile Bay. According to the DTPF, however, the road and certain bridges have been severely damaged by the transport of heavy equipment, harsh weather conditions and a lack of maintenance. Therefore, it became necessary to upgrade the infrastructures in order to reduce maintenance costs and generate new development opportunities for public and private projects.

Chigniks (port and road improvements and an air plan)

The Chigniks project seeks to link together three communities located fairly close to one another: Chignik, Chignik Lake and Chignik Lagoon. Improving the transport infrastructures and making them more secure should encourage business activities and allow greater consolidation of the government services offered to all three communities. The project also includes construction of a municipal port in Chignik and the infrastructures required to make the delivery of heating gas less expensive. Centralization of air services at a single site should also ensure more efficient, less expensive air transportation for residents thanks to a reduction in maintenance costs for each airport.

Construction of a road between Kodiak and the seaport.

The project involving the Alaska Marine Highway System seeks to allow sea travel between Kodiak and the fishing communities near the Alaskan peninsula. This project includes the replacement of the current ferry with a more modern one. A survey on the Department's site sounded out the population on the type of ferry that should be employed. This project came about because Kodiak, with its major port and airport, holds a strategic position economically and from a national defence standpoint.

The connection between King Cove and Cold Bay.

The project seeks to link the two communities in order to pool certain services and increase residents' mobility.

Information on funding was not available in the documents consulted.

## 2.3 Management

The DTPF was active on two fronts: first, with the residents of the communities affected by the transportation plan in order to respond to the most pressing needs. Consultations took place in each of the affected regions, especially in winter when the inhabitants were less busy earning a

living. Suggestions and opinions from the public were received by telephone, mail and fax. An open line was also set up by the Alaska Public Radio Network in order to facilitate interaction between the population and program officials. Second, the DTPF's planning teams worked with the industries, in particular those associated with natural resources.

There were two approaches to preparing the plans<sup>91</sup>:

The first approach, called the Resource Transportation Analysis, focuses on resource development. This approach analyses access to mineral and energy resources, such as natural gas and petroleum, as well as the transport of those resources to world markets;

The second approach, the Community Transportation Analysis, examines community-based transport needs. It includes proposals to connect communities, improve road safety and provide local economic development opportunities.

## 2.4 Success factors

According to the DTPF, the local and regional public consultations enabled the Department to develop a better understanding of the communities' transportation needs. The DTPF also believes that a two-prong approach has made it possible to select the projects with the most long-term benefits for the Department and the population.

## 3. Outcomes

Several roads and air transportation projects have already materialized. According to the documents consulted, however, it is still too soon to assess the real benefits for the region. Transportation plan officials have nevertheless identified two outcomes. First, the management methods that have welcomed input and criticism have assisted in preparing the final plan, with more services, lower costs and fewer negative impacts on the environment. For example, the consultations obviated the need to build a multimodal terminal in Chatham; a new ferry service between Juneau and Petersburg was proposed in its place. This change in the plans resulted in<sup>92</sup>:

- A \$16 million reduction in the costs of building and operating the terminal;
- A reduction in transportation times for all the corridors involved, and the possibility of travelling between Juneau and Ketchikan in a single day;
- Ketchikan terminal transfer costs avoided.

According to Eric Taylor, Statewide Transportation Plan Manager, applications of the Southeast Alaska Transportation Plan to date have focussed primarily on the use of smaller ferries and of terminals allowing for more efficient and cost-effective daily operations. The new ferries also employ a new technology that makes them faster. A faster ferry, the Fairweather, and a smaller, conventional ferry, the Lituya, began operating in the spring of 2004.

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<sup>91</sup> Transportation and Public Facilities.

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# Tumen River Area Development Project – China

## 1. Background

### 1.1 Context

The Tumen River is a 571 km waterway located in Northeast Asia<sup>93</sup>: It originates on Mount Paektu, crosses part of North Korea and enters the Sea of Japan; It forms the Northeastern frontier of North Korea (3703 km) with China and Russia; Only 80 km are navigable on account of the river's narrowness; The regional market encompasses nearly 300 million people in the various countries and accounts for nearly one-third of world trade, all categories combined<sup>94</sup>.

The Tumen River Area Development Project (TRADP) is a large-scale undertaking involving China, North Korea, South Korea, Russia, Mongolia and Japan. The project, which was conceived in 1989<sup>95</sup> and launched in the 1990s, seeks to facilitate travel and transportation to develop the region, while creating a free-trade area among the participating countries. It is expected to last 20 years and cost over \$40 billion<sup>96</sup>. The project is to include the construction of 11 ports.

The information used to prepare this record comes from the TRADP site, which is part of the United Nations Development Program (UNDP), as well as a contextual analysis of the project written by Bernadette D'Armaill.

### 1.2 Situation prior to change

According to Bernadette D'Armaill, the Tumen River and its shores are underdeveloped and have long been forgotten. Before the TRADP began, the region's inhabitants travelled very little from one country to another, partly because of political conflicts and partly on account of the lack of transport infrastructures that would have enabled them to make the trip safely and in a reasonable amount of time. The Tumen River is particularly important for China, since it gives the country access to the Sea of Japan.

### 1.3 Environment for change

Certain obstacles have occasionally jeopardized the project. First, the countries involved in the TRADP have often been political adversaries. According to Bernadette d'Armaill, South Korea is hoping that the project will foster a rapprochement with North Korea. North Korea, however, fears that political ideas from the other countries will prove to be a bad influence, while hoping that the development project helps it develop economically. Further, certain environmental issues are causing disputes. Part of the territory is made up of unique ecosystems that are currently protected areas. Rare animals like the Siberian tiger and the Amur leopard live there. The land is also rich in natural resources, which require the State's protection.

The governments involved, closely followed by ecological groups, are aware of the need to preserve these areas at the same time as the region is developed. In addition, the fear that

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<sup>93</sup> Bernadette D'Armaillé.

<sup>94</sup> American University.

<sup>95</sup> Bernatte D'Armaillé.

<sup>96</sup> American University.



administration of the project will be dominated by China or Japan has led to some resistance on the part of the other countries. On account of the distance between Moscow and the Tumen River, Russia took its time before joining the project, even though its involvement could also prove beneficial to it. Without Russia, it is clear that the bulk of the project would not have been feasible.

## 2. The model

### 2.1 Lead agencies

The governments of all the countries concerned are involved in developing the program, with some contributing more than others. Some, like Mongolia and Korea, do not have sufficient financial resources and require support from the other governments and international agencies. The UNDP is allied with them. Many Tumen-related projects are concentrated in certain countries, which manage them in cooperation with the nearest border countries. The Americans, which have economic interests in this area, have contributed their know-how and capital through the UN.

In China, a transportation working group in the Tumen Project was formed in 1995 by the Transport Services of Changchun (TSC) in China. This working group is responsible for the Action Plan for Regional Cooperation in Transport, prepared in 1998.

The Asian Development Bank has provided technical assistance valued at \$468 000.

### 2.2 Practice

Three regions are particularly affected by the TRADP<sup>97</sup>:

The Tumen River Economic Zone (TREZ), a roughly 1000 sq. km free trade district, including China's Hunchen, North Korea's Najin, and Russia's Psyet. This zone constitutes the core of the project. It has required private and public investment. Work is well advanced.

The Tumen Economic Development Area, with its 10 000 km<sup>2</sup>, is bounded by Chinas Yanji, Russia's Vladivostock and North Korea's Chongjin. Here, local authorities are developing the hinterland's infrastructures.

The Northeast Asia Regional Development occupies 370 000 km<sup>2</sup> of the river valley and beyond, binding together the border provinces of Chian, Russia and North Korea. The central governments are also involved in managing these projects. This project also encompasses the construction of cities.

The TRADP includes various wide-ranging initiatives. For example, one of the first projects proposes privatizing certain transport lines and developing landholdings and business activities along the railways. Another project involves building 10 railway lines connecting natural gas producing regions, including Shanxi and Shaanxi, to regions where natural gas is in demand. More specifically, one of the initiatives in China is the action plan for regional transport cooperation established by the TSC. It is based on the following six elements:

Promotion of private investment for transport infrastructures;  
Easier access from one country to another;

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<sup>97</sup> American University.

More competitive maritime or rail transport costs;  
 Greater choice and larger number of transport services;  
 Exchange of technical knowledge among the countries;  
 Planning for the transport infrastructures group.

As part of the TRADP, China has succeeded in adding nearly 10 000 km of new railways and 170 000 km of roads to connect coastal cities with inland cities. This new development cost \$71 billion. The Chinese government contributed \$36.9 billion. The rest came from local governments and foreign investment (e.g. the Americans). In addition to transport projects, China plans to carry out 26 industrial projects, 5 agricultural projects, 5 projects for the energy industry and 10 tourism projects within the next 20 years<sup>98</sup>.

## 2.3 Management

The governments of the five Northeast Asian countries (China, North Korea, Mongolia, Russia, South Korea) established the Tumen River Trust Fund<sup>99</sup> with support from the UNDP. This fund brings together government representatives and experts from the various intervention sectors. The documents consulted do not indicate how this fund is managed or the participation level of each.

## 2.4 Success factors

According to the TRADP analysis presented on the site, the region's enormous economic potential and the natural, technical, material and financial resources that complement each other have played a significant role in the development of the project. Russia has large territories that have not been developed, Mongolia has minerals and cattle, North Korea has an abundance of forests and labour, China has farm products, light and heavy industries, a large labour pool and a large consumer market, and Japan and South Korea have the financial capital and advanced technologies. Thus, the project has facilitated exchanges of these resources; pooled together, they form an effective partnership. Numerous political factors have also paved the way for the project's implementation, including improved relations between Russia and China.

## 3. Outcomes

A second phase of the TRADP was given the green light in May 2001. A budget of \$2.5 million was allocated and should include standardization of investment laws, improvements to transport infrastructures and promotion of natural gas and tourism<sup>100</sup>. Some projects are not progressing that fast; countries like Russia remain a little hesitant to participate for fear that China might benefit more than them.

According to the TRADP site, the passages between the various borders have led to a considerable increase in traffic between the countries. One of the best examples is the border between the Chinese city of Hunchun and the Russian city of Kraskino, where a few dozen people used to go back and forth in 2002 but where now, in 2004, several thousand people circulate daily. Improvements to transport infrastructures have led to an increase in commercial and recreational activities in this region.

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<sup>98</sup> Asian Business Daily.

<sup>99</sup> Ibid.

<sup>100</sup> UNOPS.

Numerous transport infrastructures have come into being in recent years, including a cargo transport service between Posiet, Russia and Akita, Japan. Another project involves a multimodal transport system between Hunchun, China, Zarubino, Russia, and Sokcho, Korea.<sup>101</sup>

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<sup>101</sup> Ibid.



# Privatization of maritime operations – Greenland

## 1. Background

### 1.1 Context

Located off the coast of Canada, Greenland is an immense island measuring 2.2 million km<sup>2</sup>, of which only 41 000 km<sup>2</sup> are not covered by an ice cap<sup>102</sup>. Here are some statistics concerning its population (figures are from 2004)<sup>103</sup>:

Just over 56 000 inhabitants

60% of whom (34800) live in the country's six main cities;

the other 40% are scattered across 120 villages, trading stations and sheep breeding centres.

Originally a Danish colony, it became a province of Denmark in 1953<sup>104</sup>. Following a great deal of pressure brought to bear by the population, Greenland was granted Home Rule Government by the Danish Crown in May 1979<sup>105</sup>. This political autonomy extends to several areas of responsibility. For example, Greenland devises its own rules to regulate its transportation sector; consequently, the Danish government cannot intervene in this area.

Because Greenland's road system is underdeveloped (150 km of roads)<sup>106</sup>, its inhabitants travel mainly by plane or boat. There are roads within each city, but not between cities. Only the cities of Ivittuut and Kangilinnguik possess a road link. Although Greenlanders sometimes get around by boat for local travel, most travel by air. Local air links are provided by helicopters, while regional travel between cities and districts is by plane<sup>107</sup>. The island has 18 airports.

Greenland's permafrost precludes agriculture, but there is sheep breeding in the South.

Greenlanders' diet, therefore, is composed mainly of fish and game, including seal and whale meat. They import the rest of their food.

The Royal Arctic Line shipping company was founded in 1992 following the privatization of part of the KNI Service (Kalaallit Niuerniat), a cargo operation owned by the Government of Greenland. The new mandate given to Royal Arctic Line was to modernize the operations by employing new cargo ships, among other things. Royal Arctic Line was given a sole and exclusive right to operate regular services<sup>108</sup>:

Between ports in Greenland;

Between Greenlandic ports and the cities of Aalborg, Denmark, and Reykjavik, Iceland;

Between Greenlandic ports and certain overseas ports.

The information used to prepare this record was obtained from the Web sites of Royal Arctic Line and the Government of Greenland. A few general information sites like Geocities and Fact Index as well as two articles posted on the Web, one by Donna Craig and Steven Freeland, the other by Rasmus Ole Rasmussen, rounded out the documentation consulted for this practice.

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<sup>102</sup> RASMUSSEN, Rasmus Ole.

<sup>103</sup> Ibid

<sup>104</sup> Craig, Donna and Steven Freeland

<sup>105</sup> Ibid

<sup>106</sup> FACT INDEX.

<sup>107</sup> RASMUSSEN, Rasmus Ole.

<sup>108</sup> Royal Arctic Line A/S

We also contacted Ms. Stphanie Vincent Lyk-Jensen of the Danish Transport Research Institute.

## 1.2 Situation prior to change

In 1776<sup>109</sup>, the Danish government created the Royal Greenland Trade Company (KGH), which controlled all of Greenland's commerce. In 1986, KGH underwent a transformation, becoming KNI (Kalaallit Niuerfiat). Through this new entity, the government maintained control over production and export in the fishing industry<sup>110</sup>. Until 1992, KNI was owned by the government and operated seven small cargo vessels between the port of Aalborg in Denmark and various ports in Greenland<sup>111</sup>. The cargo ships carried all sorts of merchandise, from consumer goods to heavy construction equipment. In 1992, the government split KNI (Kalaallit Niuerfiat) into three independent companies, one of which remained public.

## 1.3 Environment for change

According to information obtained from Royal Arctic Line, KNI's conventional cargo operations for the transport of goods and people were inefficient and uneconomical, especially for fish exports. Moreover, the operation did not contribute to the island's economic development.

# 2. The model

## 2.1 Lead agencies

Royal Arctic Line has primary responsibility for commercial shipping operations in Greenland. Agreements have also been signed with various countries for overseas trade. Although the government privatized shipping, it has maintained control over shipping schedules and commercial rates through the Department of Public Works and Transportation.

Three entities are now in charge of shipping in Greenland, each with its own mandate:

Royal Arctic Line:

Independent company;

Ships cargo between Greenland's main cities;

Ships goods between Greenland and overseas destinations, including Denmark and Iceland.

Royal Arctic Bygdeservice A/S:

Subsidiary of Royal Arctic Line;

Ships goods between Greenland's cities and villages (by village, we mean fewer than 550 inhabitants);

Operates a fleet of six vessels.

Arctic Umiaq Line A/S:

Founded in 1997, it remains under the full control of Greenland's Home Rule Government;

Transports passengers;

The vessels have a 250-passenger capacity;

<sup>109</sup> Yukon College.

<sup>110</sup> Craig, Donna et Steven Freeland.

<sup>111</sup> Royal Arctic Line A/S

A regional service with 27-to-60-passenger capacities is also offered<sup>112</sup>.

Port construction and maintenance remain the responsibility of Greenland's Directorate of Housing and Infrastructure. There are port facilities in 16 cities, and landing wharves have been built in nearly 60 small communities. The public ports are owned by the Government of Greenland, but agreements are in place for Royal Arctic Line to manage these ports, except for those in Qaanaaq and Illoqqortoormiut, which remain under public control. A few private ports are controlled by their owners, but these are mainly used for recreational purposes.

## 2.2 Practice

In 1995, Royal Arctic Line operated four modern container vessels and two conventional cargo ships, one of which served only the East coast of Greenland and the other the Northwest coast. Every 10 or 11 days, the four container vessels offer transport services between Aalborg, Denmark and the West coast of Greenland, with a capacity to carry the equivalent of 275 to 700 20-foot containers<sup>113</sup>. Ships travelling from Denmark serve 13 ports in Greenland, including the main one in Nuuk. Setting out from these ports, smaller feeder vessels (capacity: 275 to 380 20-foot container equivalent) serve the small communities dotting the coast.

Until 1999, Royal Arctic Line had a sole and exclusive right to transport goods to and from Greenland and between its main cities<sup>114</sup>. Subsequently, the government signed agreements with other shipping lines for other overseas destinations. In 2000, Transport Desgagns Inc., a Quebec company, announced the signing of an agreement with Royal Arctic Line to establish the first direct sea link between Canada and Greenland<sup>115</sup>. Similar agreements have also been concluded with the United States, leading to increased trade and tourism in Greenland.

## 2.3 Management

Since Royal Arctic Line is a private company and most of the official literature is in Danish, we were unable to find information on the type of management used by Royal Arctic Line. However, the company's site states that a large amount of money was invested to train pilots and other officers and technicians for the deep-sea vessels and coastal waters.

## 2.4 Success factors

Success factors include public/private management of the maritime sector supported by government control over rates. According to the documents consulted, dividing maritime transport into three units likely contributed as well to operational success and cost-effectiveness. The agreements with Denmark, Canada and the United States also represent a success factor in terms of expanding the market.

## 3. Outcomes

According to our analysis of the documents, privatization of maritime transport made the operations cost-effective. Container modernization improved the shipping of cargo and maximized revenues in relation to expenditures over the long term. Thanks to having opened up

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<sup>112</sup> Statiscal Greenland.

<sup>113</sup> Royal Arctic Line A/S.

<sup>114</sup> Ibid.

<sup>115</sup> PBB Global Logistics.



to the world, Greenland can now export and import more products. These new shipping opportunities have also increased tourism in Greenland.

Royal Arctic Line, by moving its operations centre to Nuuk, succeeded in creating many jobs in Greenland. In 1995, 570 persons were employed by Royal Arctic Line out of a population of 56 000. Greenland's main port is now Nuuk, where scores of jobs were created.

Imports and exports have risen since 1995. According to Greenland government statistics from 2001-2002, the volume of non-refrigerated goods is as follows<sup>116</sup>:

Source and destination	1995	2001
Denmark to Greenland	288 000 m <sup>3</sup>	341 000 m <sup>3</sup>
Greenland to Denmark	162 000 m <sup>3</sup>	204 000 m <sup>3</sup>
Greenland to Greenland	118 000 m <sup>3</sup>	109 000 m <sup>3</sup>

A number of ports have been built in recent years, including<sup>117</sup>,

Upernavik in 2002;

Ilulussat in 2001;

Aasiaat, which was due to be completed in 2003.

Based on the information compiled, the development of the ports and, hence, of trade, facilitated the project to build a road between Sisimiut and Kangerlussuaq. This road will make it easier to transport products from outside the country to inland destinations. The advantages of road transport fall into three different categories, according to the Government of Greenland:

It links together the communities;

It opens regions up to development;

It is less expensive (the project should save just over \$7 million in transport costs per year).

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# Transport Policy for Sustainable Development – Sweden

## 1. Background

### 1.1 Context

Sweden has a population of 8.9 million inhabitants<sup>118</sup>. In 25 years (from 1975 to 2000):

The car population went up by 45%, from 2.8 million to 4 million automobiles;

Road traffic increased by 75%;

Rail traffic increased by 23%;

Air traffic increased by 7%.

The Transport Policy for Sustainable Development (TPSD) was devised in 1997 and adopted in 1998 by the Swedish government. Its main objective is to ensure that the transport system offers citizens and the business sector an infrastructure that is efficient in terms of the economy and sustainable in the long term. According to the Ministry of Industry, Employment and Communications, the TPSD encompasses road, rail and air transportation as well as shipping. The task of preparing the transportation plan and securing funding should run until 2007, and the plan will be implemented over a 25-30-year period. The TPSD proposes transportation policy objectives and guidelines.

The information used to prepare this record comes from the Web site of the Swedish Institute for Transport and Communications Analysis and of the Ministry of Industry, Employment and Communications. A report by Ian Skinner and Malcolm Fergusson was also consulted. Lastly, we obtained some information from Hillevi Nilsson Ternström, an information officer with the Swedish national Road and Research Institute.

### 1.2 Situation prior to change

According to the Swedish Institute for Transport and Communications Analysis (SIKA), the Swedish transport system is facing a number of problems. First, Sweden's roads were built over a half century ago, when traffic was not as heavy. A number of roads are in a very poor state due to thaw or heavy traffic. To limit the damage from heavy traffic, numerous load restrictions were instituted, but these make it difficult to transport products like wood and have the effect of increasing the price of these products. Transport costs are also relatively high in relation to those in the other EU countries, undermining trade and placing Swedish businesses at a competitive disadvantage on foreign markets.

### 1.3 Environment for change

According to the Ministry of Industry, Employment and Communications, changes in citizens' and businesses' needs have been observed over the past decade, particularly when it comes to regional transport. With the country's social and economic development, the time factor has become very important and the population is demanding more efficient transport infrastructures that limit travel time. The development of resource regions requires infrastructures that are increasingly adapted to their needs and environmentally-friendly.

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<sup>118</sup> Swedish Institute for Transport and Communications Analysis, 2001 figures.



## 2. The model

### 2.1 Lead agencies

Many organizations have helped develop and implement this policy, including the National Road Administration, Swedish National Rail Administration, Swedish Maritime Administration, Swedish Government Seamens Service, Board for Shipping Support, Swedish Civil Aviation Administration, Rikstrafiken, Swedish Accident Investigation Board, Swedish National Road and Transport Research Institute, Swedish Institute for Transport and Communications Analysis, Swedish Agency for Innovation Systems, county administrative boards, etc.

Highlights:

Swedish Institute for Transport and Communications Analysis, a government agency:  
Reports to the Ministry of Industry, Employment and Communications;  
Responsible since 1999 for producing an annual report for the government on the achievement of transport policy objectives.

National Public Transport Agency, another agency of the Ministry of Industry, Employment and Communications:  
Coordinates inter-regional transport with local and regional transport.

National Debt Office, a government agency that finances various projects in Sweden:  
Issues loans to the government (loans issued between 2002 and 2004 for a value of \$1.3 billion, to be repaid by 2015).

Several levels of government are responsible for transport management:

Local governments and central government:

- Responsible for mass transit infrastructures;
- ▶ Central government:
  - Responsible for national transport infrastructures;
  - Responsible for interregional transport opportunities.
- ▶ Municipalities:
  - Responsible for municipal roads.

### 2.2 Practice

The TPSD has six objectives:

1. Create an accessible transport system;
2. Set high standards of quality for greater efficiency;
3. Ensure transport safety, which would lower the number of accidents causing death or severe injury (the rate of mortality and serious injury caused by road accidents is very high in Sweden);
4. Protect the environment and refrain from destroying resources in transport development. In April 1999, the Riksdag (Swedish parliament) adopted 15 objectives on environmental

quality that guide transport policy. These objectives were divided into sub-goals in a report released in May 2001<sup>119</sup>;

5. Promote the development of resource regions;
6. Develop a transport system that can adapt to the needs of various citizen and industry groups.

## 2.3 Management

The Swedish Environmental Protection Agency, a central government authority responsible for environmental protection, produced a document identifying each of the objectives of the Transport Policy for Sustainable Development<sup>120</sup>.

The government believes that transport decisions should be decentralized as much as possible, with a clear division of responsibilities between the planning and implementation of measures, so that transport conforms to the new policies<sup>121</sup>.

Sweden wants to introduce a mileage-based taxation system for heavy duty trucks. This project is still in the planning stage.

Between 2002 and 2004, the government invested:

- ▶ \$1.8 billion, broken down as follows:
  - 44% for long-term investment in railway development;
  - 36% for long-term investment in road development;
  - 18% to expand and rebuild roads, as well as making them more resistant to freezing;
  - 3% for railway operation and maintenance.

Since 1999, \$71 million a year has been invested to make roads safer.

Over the long term (2004 to 2015), the government is expected to invest:

- ▶ \$65 billion (\$57 billion in development activities and \$8 billion in interest payments and to retire the debt incurred by expenditures for the TPSD):
  - of this \$57 billion:
    - \$26.9 billion will go toward maintaining and converting existing roads and railways;
    - \$30.1 billion will be spent on developing and modernizing the transport system (construction of tunnels, creation of a new corridor to the regions, etc.).

## 2.4 Success factors

At this time, the documents consulted do not allow us to identify success factors. It seems to us, however, that one of the innovative elements of this policy is the division of responsibilities between the planning and implementation of the measures.

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<sup>119</sup> Government of Sweden.

<sup>120</sup> SKINNER, Ian, and Malcolm Fergusson.

<sup>121</sup> Government of Sweden.

### 3. Outcomes

The 2002 report of the Swedish Institute for Transport and Communications Analysis (SIKA) reveals that the traffic of people and goods has reached new heights. An examination of the current transport situation shows that it has not yet been possible to adjust the infrastructures to suit the increase in traffic. A longer-term analysis, however, shows that road and rail expansion and improvements to certain means of transport have made isolated regions more accessible. But this increased accessibility has yet to reduce travel times, although it has allowed a better dispersion of communities. In 1999, 600 km of roads were improved or created. A new railway was also founded in 2000, to go along with SJ (Swedish State Railways). This new railway increased passenger capacity by a third. New companies were established in the rail transport sector, thereby expanding the market. In 1999, a new high-speed ferry service was introduced between the cities of Visby and Gotland, in Southern Sweden. This cut travel times in half. However, since the project is only in the early stages, we will have to wait a few years before judging its real impact.

According to the SIKA report, the creation in 1999 of the National Public Transport Agency has led to better development and coordination of interregional public transport.

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## SUMMARY

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Our assignment was to identify, internationally, various practices that maximize economic and social benefits and that can guide governments and their private-sector partners in large-scale projects in Canada's North. Five themes were identified, covering issues related to resource regions. Within each of the themes, five practices were to be presented. The aim of the study was to situate the practice, describe it briefly, identify the main stakeholders, determine the success factors and list the outcomes.

The first theme focussed on overall policy. As its name would indicate, these are not necessarily practices per se, but rather policies – which are more general than practices, since the latter are often targeted. Four trends emerged from the study of these policies. First, all of the projects focus greatly on environmental friendliness. Second, the projects' success is partially a function of the involvement of the various socio-economic actors present in the community. Third and fourth, experiences were shared and networking took place to spread knowledge.

The second theme involved the mining sector. The practices examined dealt with various development projects in mining regions. The trends that emerged from the study of these practices mainly involve the growing involvement of communities in carrying out the various projects. In addition, several projects received support from international organizations at the introductory and implementation stage. The last trend has to do with the development of ante-mortem projects. Several of the projects presented were developed before the end of the mining activities.

The Energy development, hydroelectric and pipeline sector was the third theme. Three of the practices examined involved programs developed by such large corporations as Total and Texaco. Two main trends were identified. The first deals with the environmental perspective that is increasingly guiding the management of energy programs. The second has to do more specifically with the local populations, which are increasingly receiving a share of the revenues from the natural resources developed on their territory.

The fourth theme presented five practices in the forest sector. Sustainable management of forestry resources is a very topical issue, and the following trends emerged from a study of the practices. First, forest management regulations have become more restrictive. Second, in some cases this sector has been developed thanks to public-private or public-public partnerships. Last, a concern for biodiversity was present in much of this sector.

The fifth and final theme dealt with transport infrastructures. Transport, be it maritime, rail, road or air, has undergone major transformations over the past century. Some of the practices examined involve transport development, especially with regard to less-developed regions, while others involve attempts to improve the existing infrastructures. We were able to identify certain trends, such as the involvement of local populations in the various projects and the funding of these projects by governments and, in many cases, international agencies.

The trends analysis identified certain elements common to several of the themes, including:

- ▶ The concern for environmental friendliness is increasingly present in several activities;

- ▶ Local populations are involved in planning, implementing and following up on programs in almost all the projects;
- ▶ There are various formulae for sharing revenues with the local populations, particularly in natural resource development sectors such as mining, forestry and energy;
- ▶ The main donors assisting in putting in place the maximization practices are governments, often with the help of international agencies;
- ▶ Private-public partnerships are being relied on more and more.

A report card for the 25 practices touched on in this report cannot be issued, since the practices are not all at the same stage of development – some are finished, while others are barely underway. However, some of the success factors are common to a number of practices. These factors fall into four categories:

- ▶ Factors relating to local populations: involvement, participation and consultation of the populations, as well as respect for local customs and lifestyles, have a positive impact on the success of a project;
- ▶ Factors relating to the private sector: sensitization, mobilization and involvement of private stakeholders have a positive effect on the success of the projects;
- ▶ Factors relating to government: the involvement of central and local governments and the division of responsibilities between project planning and implementation also play a role in the success of the projects;
- ▶ Factors relating to management: benchmarking of experiences, results-oriented management and public-private partnerships are the final factors that can have a bearing on the success of the projects.









